

COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2013

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

NONDEPARTMENTAL WITNESSES

[CLERK'S NOTE.—The subcommittee was unable to hold hearings on nondepartmental witnesses. The statements and letters of those submitting written testimony are as follows:]

PREPARED STATEMENT OF THE AMERICAN GEOSCIENCES INSTITUTE

The American Geosciences Institute (AGI) supports Earth science research sustained by the National Science Foundation (NSF), the National Oceanic and Atmospheric Administration (NOAA), the National Institute of Standards and Technology (NIST) and the National Aeronautics and Space Administration (NASA). Frontier research on the Earth, energy, and the environment has fueled economic growth, mitigated losses and sustained our quality of life. The subcommittee's leadership in supporting geoscience-based research is even more critical as our Nation competes with rapidly developing countries, such as China and India, for energy, mineral, air, and water resources. Our Nation needs skilled geoscientists to help explore, assess and develop Earth's resources in a strategic, sustainable and environmentally sound manner and to help understand, evaluate, and reduce our risks to hazards. AGI supports the President's budget request of \$7.373 billion for NSF, \$859.75 million for NIST, and \$1.785 billion for Earth science at NASA plus \$5.3 billion for NOAA.

AGI is a nonprofit federation of 50 geoscientific and professional societies representing more than 250,000 geologists, geophysicists, and other Earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice for shared interests in our profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resilience to hazards, and the health of the environment.

National Science Foundation.—AGI supports an overall budget of \$7.373 billion for NSF. AGI greatly appreciates the Congress' support for science and technology in recent appropriations and through the America COMPETES Reauthorization Act of 2010. The forward-looking investments in NSF are fiscally responsible and will pay important dividends in future development that drives economic growth, especially in critical areas of sustainable and economic natural resources and reduced risks from natural hazards. Support for science will save jobs, create new jobs, support students, and provide training for a 21st century workforce.

National Science Foundation Geosciences Directorate.—The Geosciences Directorate (GEO) is the principal source of Federal support for academic Earth scientists and their students who are seeking to understand the processes that sustain and transform life on this planet. About 63 percent of support for university-based geosciences research comes from this directorate and more than 14,600 people will be directly supported through GEO in fiscal year 2013 with thousands of others deriving support indirectly.

The President's request for fiscal year 2013 asks for \$264 million for Atmospheric and Geospace Sciences; \$189 million for Earth sciences; \$362 million for Ocean sciences; and \$91 million for Integrative and Collaborative Education and Research within GEO. Much of the geosciences research budget is for understanding that is

critical for current national needs, such as water and mineral resources, energy resources, environmental issues, climate change, and mitigation of natural hazards. AGI asks the subcommittee to strongly support these funding levels.

GEO supports infrastructure and operation and maintenance costs for cutting-edge facilities that are essential for basic and applied research. Ultimately the observations and data provide knowledge that is used by researchers and professionals in the public, Government and private sector. GEO research and infrastructure helps drive economic growth in a sustainable manner. Geoscience-based research tools and academic expertise helped to end the BP Deepwater Horizon oil spill, saving billions of dollars for industry and untold costs to the environment. Research funding continues to help the gulf coast recover environmentally and economically.

Among the major facilities that NSF supports, the Academic Research Fleet would receive \$73 million; EarthScope Operations would receive \$26 million; Incorporated Research Institutions for Seismology would receive \$11 million; Ocean Drilling Activities would receive \$39 million; the Ocean Observatories Initiative would receive \$40 million; and the National Center for Atmospheric Research would receive \$92 million. AGI strongly supports robust and steady funding for infrastructure and operation and maintenance of these major facilities.

NSF's Office of Polar Programs (OPP) funds basic research in the Arctic and Antarctica that helps the United States maintain strategic plans, international efforts, security goals, natural resource assessments, cutting-edge polar technology developments, and environmental stewardship of extreme environs. OPP's funding helps support researchers and students, the U.S. military, and the private sector. OPP is estimated to directly support almost 3,325 people in fiscal year 2013 and thousands of others indirectly. AGI supports the President's request of \$449.7 million for this important program.

National Science Foundation Support for Earth Science Education.—The Congress can grow the depleted geosciences workforce; stimulate economic growth in the energy, natural resources, and environmental sectors; and improve natural resource literacy by supporting the full integration of Earth science information into mainstream science education at the K–12 and higher education levels. AGI strongly supports the Math and Science Partnerships (MSP), the Graduate Research Fellowships (GRF) and the Research Experiences for Undergraduates (REU) within NSF's Education and Human Resources Division. These programs are effective in building a science and engineering workforce for the 21st century.

Improving geoscience education, one of the goals of NSF-EHR, to levels of recognition similar to other scientific disciplines is important in the following ways:

- Geoscience offers students subject matter that has direct application to their lives and the world around them, including energy, minerals, water, and environmental stewardship. All students should be required to take a geoscience course in primary and secondary school.
- Geoscience exposes students to a range of interrelated scientific disciplines. It is an excellent vehicle for integrating the theories and methods of chemistry, physics, biology, and mathematics. A robust geoscience course would make an excellent capstone for applying lessons learned from earlier class work.
- Geoscience awareness is a key element in reducing the impact of natural hazards on citizens—hazards that include earthquakes, volcanic eruptions, hurricanes, tornadoes, and floods. Informal geoscience education that leads to reducing risks and preparing for natural events should be a life-long goal.
- Geoscience provides the foundation for tomorrow's leaders in research, education, utilization and policymaking for Earth's resources and our Nation's strategic, economic, sustainable, and environmentally sound natural resources development. There are not enough U.S.-trained geoscientists to meet current demand and the gap is growing. Support for geoscience research and education is necessary to stay competitive and to wisely manage our natural resources.

NOAA.—AGI supports a budget of \$5.3 billion for NOAA, which is consistent with the request of other stakeholders and more than the President's request of \$5.061 billion. We hope the subcommittee will continue to support the National Weather Service (NWS); Oceanic and Atmospheric Research (OAR); National Ocean Service (NOS); and the National Environment Satellite, Data and Information Service (NESDIS). These programs are critical for understanding and mitigating natural and human-induced hazards in the Earth system while sustaining our natural resources. These programs prevent billions of dollars of losses, keep the private and public sectors growing, and save lives. For example, drought forecasts are worth up to \$8 billion to the agriculture, transportation, tourism, and energy sectors while NexRad radar has prevented more than 330 fatalities and 7,800 injuries from tornadoes since the early 1990s. The additional request of AGI and stakeholders would

bring NWS, OAR, and NOS back to fiscal year 2010 levels, while supporting non-procurement needs in NESDIS.

National Institute of Standards and Technology.—We support the President's request of \$860 million for NIST in fiscal year 2013. Basic research at NIST, conducted by Earth scientists and geotechnical engineers, is used by the public and private sector on a daily basis. The research conducted and the information gained is essential for understanding climate change and natural hazards in order to build resilient communities and stimulate economic growth with reduced impact from risk. In particular, we support Measurements and Standards to Support Increased Energy Efficiency and Reduced Environmental Impact and Measurements and Standards to Support Advanced Infrastructure Delivery and Resilience. Energy efficiency and reduced environmental impact research will improve the health of our planet and reduce energy costs. The advanced infrastructure research will help to reduce the estimated average of \$52 billion in annual losses caused by floods, fires, and earthquakes.

NIST is the lead agency for the National Earthquake Hazard Reduction Program (NEHRP), but has received only a small portion of authorized and essential funding in the past. AGI strongly supports the reauthorization of the National Earthquake Hazards Reduction Program (NEHRP) in 2012. We hope the appropriations subcommittee will continue to support this effective and cohesive program, even if the authorizing legislation takes more time to complete. NEHRP is an excellent example of how to coordinate different entities for the safety and security of all. NEHRP develops effective practices and policies for earthquake loss reduction and accelerates their implementation; improves techniques for reducing earthquake vulnerabilities of facilities and systems; improves earthquake hazards identification and risk assessment methods and their use; and improves the understanding of earthquakes and their effects.

National Aeronautics and Space Administration.—AGI supports the vital Earth observing programs within NASA. AGI supports the President's request of \$1.785 billion for Earth science programs within the Science Mission Directorate at NASA. The investments are needed to implement the priorities of the National Academies Earth Science and Applications from Space Decadal Survey. NASA needs to maintain its current fleet of Earth-observing satellites, launch the next tier and accelerate development of the subsequent tier of missions. The observations and understanding about our dynamic Earth gained from these missions is critical and needed as soon as possible. Earth observations are used every day, not just for research, but for critical information to aid society in mundane tasks, like weather forecasting and emergency services, such as tracking volcanic ash plumes or oil spills that disrupt the economy and the environment. The requested increase for fiscal year 2013 and proposed increases for future years are wise and well-planned investments that benefit everyone.

We appreciate this opportunity to provide testimony to the subcommittee and would be pleased to answer any questions or to provide additional information for the record.

PREPARED STATEMENT OF THE AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES

The American Institute of Biological Sciences (AIBS) appreciates the opportunity to provide testimony in support of fiscal year 2013 appropriations for the National Science Foundation (NSF). We encourage the Congress to provide NSF with at least \$7.373 billion in fiscal year 2013.

The AIBS is a nonprofit scientific association dedicated to advancing biological research and education for the welfare of society. AIBS works to ensure that the public, legislators, funders, and the community of biologists have access to and use information that will guide them in making informed decisions about matters that require biological knowledge. Founded in 1947 as a part of the National Academy of Sciences, AIBS became an independent, member-governed organization in the 1950s. Today, AIBS has nearly 160 member organizations and is headquartered in Reston, Virginia, with a Public Policy Office in Washington, DC.

The NSF is an important engine that helps power our Nation's economic growth. Through its competitive, peer-reviewed research grants, NSF is leading the development of new knowledge that will help to solve the most challenging problems facing society, and will lead to new scientific discoveries, patents, and jobs. The agency's education and training programs are helping to ensure that the next generation has the scientific, technical, and mathematical skills employers are seeking. Investments in research equipment and facilities enable the country to continue to innovate and compete globally. These efforts, however, require a sustained and predictable Fed-

eral investment. Unpredictable swings in Federal funding can disrupt research programs, create uncertainty in the research community, and stall the development of the next great idea.

The NSF is the primary Federal funding source for fundamental research in the nonmedical life sciences at our Nation's universities and colleges. The NSF provides approximately 62 percent of extramural Federal support for nonmedical, fundamental biological, and environmental research at academic institutions.

NSF is a sound investment that pays dividends. The use of peer-review to evaluate and select the best proposals means that NSF is funding the highest-quality research. Importantly, the fiscal year 2013 budget request would allow the agency to fund 300 additional research grants, thereby supporting roughly 5,000 additional researchers, teachers, and students.

The research supported by NSF is unique from the science funded by other Federal agencies. Unlike most Federal agencies, which focus on applied research, NSF supports basic research that advances the frontiers of our knowledge about biodiversity, genetics, physiology, and ecosystems. Recent discoveries that stem from NSF-funded research include:

- Creation of designer enzymes that can convert biomass into biofuels faster, more efficiently, and less expensively.
- Refined understanding of the mechanism by which the flu virus infects humans. This insight could help to develop more effective treatments for the flu and save lives.
- Identification of long-term environmental changes in U.S. ecosystems, such as changes in hydrology and nutrient inputs in lakes in the Midwest.
- Knowledge of the physiological effects of human-caused marine stressors, such as pollution and low oxygen, on crustaceans' ability to fend off bacterial infections. This research has ramifications for several economically important fisheries.
- Insight into the benefits of antimicrobial plant resins used in beehives on honeybee health. This discovery could have implications for colony collapse disorder, which has devastated bee populations in North America.

BIOLOGICAL SCIENCES DIRECTORATE

The Biological Sciences Directorate (BIO) funds research in the foundational disciplines within biology. These fields of study further our understanding of how organisms and ecosystems function. Additionally, BIO supports innovative interdisciplinary research that improves our understanding of how human social systems influence—or are influenced by—the environment, such as the NSF-wide Science, Engineering, and Education for Sustainability program. In collaboration with NSF's engineering, math, and physical science directorates, BIO is working to develop new, cutting-edge research fields. For example, the BioMaPS program is accelerating understanding of biological systems, and applying that knowledge to new technologies in clean energy.

The fiscal year 2013 budget request for NSF would enable the agency to continue to fund highly competitive grant proposals in BIO's five core programmatic areas:

- Environmental biology;
- Integrative organismal systems;
- Molecular and cellular biosciences;
- Biological infrastructure; and
- Emerging frontiers.

Each of BIO's program areas also contribute to the education and training of undergraduate, graduate, and postdoctoral students.

Equally important, BIO provides essential support for our Nation's place-based biological research, such as field stations and natural science collections. The Long-Term Ecological Research program supports fundamental ecological research over long-time periods and large spatial scales, the results of which provide information necessary for the identification and solution of environmental problems.

The budget request also would sustain an effort to digitize high-priority specimens in U.S. scientific collections. This investment will help the scientific community ensure access to and appropriate curation of irreplaceable biological specimens and associated data, and stimulate the development of new computer hardware and software, digitization technologies, and database management tools.

The fiscal year 2013 budget would continue efforts to better understand biodiversity. Funding is included for the Dimensions of Biodiversity program, which supports cross-disciplinary research to describe and understand the scope and role of life on Earth. Despite centuries of discovery, most of our planet's biodiversity remains unknown. This lack of knowledge is particularly troubling given the rapid

and permanent loss of global biodiversity. Better understanding of life on Earth will help us to protect valuable ecosystem services and make new bio-based discoveries in the realms of food, fiber, fuel, pharmaceuticals, and bio-inspired innovation.

The budget request includes funding in the Major Research Equipment and Facilities Construction account for the continued construction of the National Ecological Observatory Network (NEON). Once completed, NEON will provide the infrastructure necessary to collect data across the United States on the effects of climate change, land use change, water use, and invasive species on natural resources and biodiversity. This information will be valuable to scientists, resource managers, and Government decisionmakers as they seek to better understand and manage natural systems.

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS EDUCATION

The requested budget would allow NSF to build upon its central role in science, technology, engineering, and mathematics (STEM) education. Support for the scientific training of undergraduate and graduate students is critically important to our research enterprise. Students recruited into science through NSF programs and research experiences are our next generation of innovators and educators. In short, NSF grants are essential to the Nation's goal of sustaining our global leadership in science, technology, engineering and mathematics and reigniting our economic engines.

We encourage the subcommittee to provide the requested funding for the successful Graduate Research Fellowship program. The budget request would provide funding for 2,000 new fellowships, which are important to our national effort to recruit and retain the best and brightest STEM students. The budget would also provide a needed \$2,000 increase to the fellowship's stipend, which has not changed since 2005.

The agency budget request also would provide important research support to early career scientists, helping them to initiate their research programs. The Faculty Early Career Development program (CAREER) supports young faculty who are dedicated to integrating research with teaching and learning. The fiscal year 2013 budget would enable NSF to support approximately 40 more CAREER awards than in fiscal year 2012.

CONCLUSION

Continued investments in the biological sciences are critical. The budget request for NSF will help spur economic growth and innovation and continue to build scientific capacity at a time when our Nation is at risk of being outpaced by our global competitors. Please support an investment of at least \$7.373 billion for NSF for fiscal year 2013.

Thank you for your thoughtful consideration of this request and for your prior efforts on behalf of science and NSF.

PREPARED STATEMENT OF THE AMERICAN INDIAN HIGHER EDUCATION CONSORTIUM

This statement focuses on the National Science Foundation (NSF).

On behalf of this Nation's 37 tribal colleges and universities (TCUs), which compose the American Indian Higher Education Consortium (AIHEC), thank you for the opportunity to express our views and recommendations regarding the National Science Foundation's Tribal Colleges and Universities Program (NSF-TCUP) for fiscal year 2013.

SUMMARY OF REQUEST

National Science Foundation—Education and Human Resources Directorate

Since fiscal year 2001, a TCU initiative has been funded and administered under the NSF-Education and Human Resources (EHR). This competitive grants program enables TCUs to enhance the quality of their science, technology, engineering, and mathematics (STEM) instructional and outreach programs. TCUs that have been awarded an NSF-TCUP grant have completed comprehensive institutional needs analysis and developed a plan for how to address both their institutional and NSF goals, with a primary institutional goal being significant and sustainable expansion and improvements to STEM programs. Through NSF-TCUP, tribal colleges have been able to establish and maintain programs that represent a key component of the pipeline for the American Indian STEM workforce. We urge the subcommittee to fund the NSF-TCU competitive grants program at a minimum of \$13,350,000.

TRIBAL COLLEGES AND UNIVERSITIES SHOESTRING BUDGETS: "DOING SO MUCH WITH SO LITTLE"

Tribal colleges and universities are accredited by independent, regional accreditation agencies and like all U.S. institutions of higher education, must periodically undergo stringent performance reviews to retain their accreditation status. TCUs fulfill additional roles within their respective reservation communities functioning as community centers, libraries, tribal archives, career and business centers, economic development centers, public meeting places, and child and elder care centers. Each TCU is committed to improving the lives of its students through higher education and to moving American Indians toward self-sufficiency.

TCUs have advanced American Indian higher education significantly since we first began four decades ago, but many challenges remain. Tribal colleges and universities are perennially underfunded. In fact, TCUs are the most poorly funded institutions of higher education in the country.

The tribal governments that have chartered TCUs are not among the handful of wealthy gaming tribes located near major urban areas. Rather, they are some of the poorest governments in the Nation. Tribal colleges are home to some of the poorest counties in America.

The Federal Government, despite its trust responsibility and treaty obligations, has never fully funded the principal institutional operating budgets, authorized under the Tribally Controlled Colleges and Universities Assistance Act of 1978. The Tribal College Act authorizes basic institutional operations funding on a per Indian student basis; yet the funds are not appropriated in the same manner. In fiscal year 2011, the Congress proposed level funding for TCU institutional operating grants and appropriated the communal pot of funds at the same level as fiscal year 2010. However, due to a spike in enrollments at the TCUs of more than 1,660 Indian students in a single year, the TCUs are receiving funds at \$549 less per Indian student toward their institutional operating budgets. Fully funding TCUs' operating budgets would require \$8,000 per Indian student. The tribal colleges are currently operating at \$5,235 per Indian student. By contrast, Howard University located in the District of Columbia, the only other minority-serving institution to receive institutional operations funding from the Federal Government, is funded at approximately \$19,000 per student. We are by no means suggesting that Howard University does not need this funding, only that the TCUs' operating budgets are clearly grossly underfunded.

While TCUs do seek funding from their respective State legislatures for the non-Indian State-resident students (sometimes referred to as "nonbeneficiary" students) that account for 20 percent of their enrollments, successes have been at best inconsistent. TCUs are accredited by the same regional agencies that accredit mainstream institutions, yet they have to continually advocate for basic operating support for their non-Indian State students within their respective State legislatures. If these nonbeneficiary students attended any other public institution in the State, the State would provide that institution with ongoing funding toward its operations.

TCUs effectively blend traditional teachings with conventional postsecondary curricula. They have developed innovative ways to address the needs of tribal populations and are overcoming long-standing barriers to success in higher education for American Indians. Since the first TCU was established on the Navajo Nation in 1968, these vital institutions have come to represent the most significant development in the history of American Indian higher education, providing access to, and promoting achievement among, students who might otherwise never have known postsecondary education success.

JUSTIFICATIONS

National Science Foundation-Education and Human Resources

American Indian students have the highest high school drop-out rates in the country. On average, more than 75 percent of all TCU students must take at least one developmental course, most often precollege mathematics. Of these students, our data indicate that many do not successfully complete the course in 1 year. Without question, a large proportion of the TCUs already limited resources is dedicated to addressing the failings of K-12 education systems.

To help rectify this, TCUs have developed strong partnerships with their K-12 feeder schools and are actively working, often with support from NSF-TCU grant programs, to engage young students in community and culturally relevant science and math programs. These efforts include weekend academies and summer STEM camps that reinforce and supplement the instructional programs area K-12s are able to provide.

Beginning in fiscal year 2001, NSF-TCUP has provided essential capacity building assistance and resources to TCUs. In the approximately 10 years since the pro-

gram began, NSF-TCUP has become the primary Federal program for building STEM capacity at the TCUs. NSF-TCUP has served as a catalyst for capacity building and positive change at TCUs and the program can be credited with many success stories. Today, American Indians are more aware of the importance of STEM to their long-term survival, particularly in areas such as renewable energy and technology-driven economic development.

The NSF-TCU program, administered by the Education and Human Resources Directorate, is a competitive grants program that enables TCUs to develop and expand critically needed science and math education and research programs relevant to their respective communities. Through this program, TCUs that have been awarded an NSF-TCUP grant have been able to enhance their STEM instructional offerings, workforce development, and outreach programs.

For example, College of Menominee Nation (CMN) in Keshena, Wisconsin has established strong programs in pre-engineering, computer science, natural resources, the biological and physical sciences, and sustainable development, mainly through support from NSF-TCUP. CMN's Sustainable Development Institute now hosts regional and sometimes international conferences on sustainable practices and in 2011 hosted an important conference for tribes located in the Great Lakes region to review current research on, and discuss strategies for responding to emerging challenges attributed to, climate change. CMN is an example of how TCUs are using their STEM programs as a springboard for taking critical leadership roles within their communities. Additionally, faculty and students at Haskell Indian Nations University in Lawrence, Kansas are using the university's Sequoyah Computer and GIS Lab to support their work with the Omaha and Winnebago Tribal Nations in collecting and analyzing hydrologic and botanical data necessary to support resource management decisionmaking by the tribal leadership.

Unfortunately, not all of the TCUs have had an opportunity to benefit from this program; yet, funding for this vital program has been static, and the percentage of proposals funded has declined each year beginning in 2004. We strongly urge the subcommittee to fund the NSF-TCU grants program at a minimum of \$13,350,000.

CONCLUSION

Tribal colleges and universities provide access to quality higher education opportunities, including STEM-focused programs, for thousands of American Indians. The modest Federal investment that has been made in TCUs has paid great dividends in terms of employment, education, and economic development. Continuation of this investment makes sound moral and fiscal sense.

We greatly appreciate your past and continued support of the Nation's tribal colleges and universities and your serious consideration of our fiscal year 2013 appropriation request.

PREPARED STATEMENT OF THE AMERICAN PUBLIC POWER ASSOCIATION

The American Public Power Association (APPA) supports adequate funding for staffing antitrust enforcement and oversight at the Department of Justice (DOJ). For the DOJ Antitrust Division we support the President's fiscal year 2013 request of \$165 million.

APPA is the national service organization representing the interests of more than 2,000 municipal and other State and locally owned utilities in 49 States (all but Hawaii). Collectively, public power utilities deliver electricity to 1 of every 7 electric consumers (approximately 46 million people), serving some of the Nation's largest cities. However, the vast majority of APPA's members serve communities with populations of 10,000 people or less.

The DOJ Antitrust Division plays a critical role in monitoring and enforcing antitrust laws affecting the electric utility industry. With the repeal of the Public Utility Holding Company Act (PUHCA) included in the Energy Policy Act of 2005, the electric utility industry has experienced an increase in mergers that could result in increased market power in certain regions. This development, coupled with the volatility and uncertainty continuing to occur in wholesale electricity markets run by regional transmission organizations, makes the oversight provided by DOJ more critical than ever.

We appreciate the opportunity to submit this statement outlining our fiscal year 2013 funding priority within the Commerce, Justice, Science and Related Agencies subcommittee's jurisdiction.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF AGRONOMY

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) represent more than 18,000 members in academia, industry, and Government, and 13,000 Certified Crop Advisers. The largest coalition of professionals dedicated to the agronomic, crop, and soil science disciplines in the United States, ASA, CSSA, and SSSA are dedicated to utilizing science in order to meet our growing food, feed, fiber, and fuel needs. With an ever-expanding global population and increasing food demands, investment in food and agriculture research is essential to maintaining our Nation's food, economic and national security. We are pleased to submit the following funding recommendations for fiscal year 2013.

ASA, CSSA, and SSSA understand the budgetary challenges facing the Senate Commerce, Justice, Science, and Related Agencies Appropriations subcommittee. We also recognize that the Commerce, Justice, and Science, and related agencies appropriations spending bill has many valuable and necessary components, and we applaud the past efforts of the subcommittee to fund critical research through the National Science Foundation (NSF). ASA, CSSA, and SSSA urge the subcommittee to support an increase in fiscal year 2013 funding for NSF of 5 percent more than the fiscal year 2012 enacted level, bringing total funding to \$7.4 billion, the same funding level recommended in the President's fiscal year 2013 budget request. This strong level of funding will enable NSF to continue valuable projects that promote transformational and multidisciplinary research, provide needed scientific infrastructure, and contribute to preparing the next generation science, technology, engineering, and mathematics workforce.

Within NSF we support the following programs that help advance our understanding of the basic crop and soil sciences. These sciences underpin future solutions to many of the most pressing challenges including food security, sustainable renewable energy production, and environmental protection that confront both our country and the world.

BIOLOGICAL SCIENCES DIRECTORATE

Molecular and Cellular Biosciences

ASA, CSSA, and SSSA support funding Molecular and Cellular Biosciences (MCB) at \$132.68 million for fiscal year 2013 (an \$6.89 million or 5.5-percent increase more than fiscal year 2012). MCB supports fundamental research and related activities designed to promote understanding of complex living systems at the molecular, sub-cellular, and cellular levels. The division supports research across a broad spectrum of experimental systems, ranging from organisms, such as plants and microbes, to the use of in silico approaches.

Integrative Organismal Systems

ASA, CSSA, and SSSA support increasing Integrative Organismal Systems (IOS) funding to \$220.52 million (an increase of \$8.19 million or 3.9 percent more than fiscal year 2012), which would allow 41 percent of the IOS portfolio to be available for new research grants. In order to meet increasing demands and develop more robust crops, additional fundamental understanding regarding the basic biology of these crops is needed. IOS maintains its commitment to support fundamental plant genome research through the Plant Genome Research Program (PGRP). In addition, the Developing Country Collaborations in Plant Genome Research program links U.S. researchers with partners from developing countries to solve problems of mutual interest in agriculture and energy and the environment. Additionally, in collaboration with the Department of Energy and the Department of Agriculture, the PGRP has financed the Maize Genome Sequencing Project—a sequencing project for one of the most important crops grown globally.

The PGRP's Basic Research to Enable Agricultural Development (BREAD) program supports basic research on early concept approaches and technologies for science-based solutions to problems of agriculture in developing countries. ASA, CSSA, and SSSA recommend a funding level of \$6 million for the BREAD program.

Finally, in 2005 the International Rice Genome Sequencing Project published the finished DNA blueprint for rice—a crop fundamental to populations worldwide. To continue the discovery of new innovative ways to enhance crop production for a growing population, sustained funding is needed for similar projects.

GEOLOGICAL SCIENCES DIRECTORATE

Division of Atmospheric and Geospace Sciences

ASA, CSSA, and SSSA support increasing Division of Atmospheric and Geospace Sciences (AGS) funding to \$264.06 million (an increase of \$5.4 million or 2.1 percent more than fiscal year 2012). Changes in terrestrial systems will have great impacts on biogeochemical cycling rates, which in turn, greatly affect our agriculture, crops, and soil. By providing support for basic science and the acquisition, maintenance, and operation of observational facilities and services, AGS ensures the presence of modern-day atmospheric and geospace science research activities.

Earth Sciences

ASA, CSSA, and SSSA support increasing Earth Sciences (EAR) funding to \$189.2 million (an increase of \$5.7 million or 3.1 percent more than fiscal year 2012). The Earth Sciences division supports the Surface Earth Processes section which researches geomorphology and land use, hydrologic science, geobiology, geochemistry (particularly the Geobiology and Low-Temperature Geochemistry Program), and sedimentary geology and paleobiology—all crucial to the areas of agronomy, soil, and crops. In addition, EAR supports EarthScope which focuses on studying the structure and tectonics of the North American continent and an Instrumentation and Facilities program that supports community-based, shared-use facilities, as well as an education program to attract and support students and young investigators to the field of Earth science. ASA, CSSA, and SSSA also support strong funding for the Critical Zone Observatories that operate at the watershed scale and significantly advance our understanding of the integration and coupling of Earth surface processes as mediated by the presence and flux of fresh water.

DIRECTORATE FOR EDUCATION AND HUMAN RESOURCES

Division of Graduate Education

ASA, CSSA, and SSSA support increasing Division of Graduate Education funding to \$184.82 million (an increase of \$5 million or 3.9 percent more than fiscal year 2012). ASA, CSSA, and SSSA are dedicated to the enhancement of education, and concerned about recent declines in enrollment for many sciences. ASA, CSSA, and SSSA support science, technology, engineering, and mathematics (STEM) education efforts in order to prepare the next generation of agronomy, crop, and soil scientists.

In light of this effort, ASA, CSSA, and SSSA recommend strong support for the Integrative Graduate Education and Research Traineeships program. Graduate students are the next generation of scientists, and opportunities for study must be increased with the ever-increasing demands of science. Global problems rely on scientific discovery for their amelioration and it is critical that the United States continue to be a leader in graduate education.

Division of Undergraduate Education

ASA, CSSA, and SSSA support increasing Division of Undergraduate Education (DUE) funding to \$246.64 million (an increase of \$11 million or 4.7 percent more than fiscal year 2012). The entire DUE portfolio (Advanced Technological Education, Science, Technology, Engineering, and Mathematics Talent Expansion Program, and Transforming Undergraduate Education in Science) seeks to anchor a coherent body of knowledge on innovative and effective STEM learning environments. This core area addresses all levels of transition, including high school to undergraduate or community college to 4-year institution shifts. Investments in DUE will support the further implementation of STEM practices in order to bring learners to the frontiers of science.

NATIONAL SCIENCE FOUNDATION-WIDE/CROSSCUTTING PROGRAMS

Integrated National Science Foundation Support Promoting Interdisciplinary Research and Education

ASA, CSSA, and SSSA support the budget request of \$63 million for Integrated NSF Support Promoting Interdisciplinary Research and Education (INSPIRE). INSPIRE seeks to increase NSF's support of bold high-risk interdisciplinary projects that may fall outside the scope of existing NSF programs. This is especially important as NSF seeks to encompass improvements in business practices, funding culture, training and evaluation.

Expeditions in Education

ASA, CSSA, and SSSA support the establishment of the Expeditions in Education Initiative in order to “move the dial” toward achieving important national goals in

STEM education and human capital development. We support NSF's request of \$49 million in order to achieve the goal of infusing cutting-edge science, engineering, and innovation into the preparation of a world-class scientific workforce.

Science, Engineering, and Education for Sustainability

ASA, CSSA, and SSSA support the budget request of \$202.5 million for Science, Engineering, and Education for Sustainability. This long-term investment reflects an effort by NSF to coordinate and grow research and education associated with the environment, energy, and sustainability. More specifically, we support NSF's efforts to increase our understanding of the integrated system of resource and supply chains, society, the natural world, and the alterations humans bring to Earth.

Partnerships for Enhanced Engagement in Research

ASA, CSSA, and SSSA support the continued cooperation between NSF and USAID. Partnerships for Enhanced Engagement in Research grants provide an important opportunity to support scientists in developing countries who work with NSF-funded scientists at U.S. institutions.

Graduate Fellowships and Traineeships

ASA, CSSA, and SSSA support the budget request of \$321.67 million for NSF's graduate fellowship and traineeship programs. This funding will enable NSF to support an estimated 6,950 graduate students, including 2,000 new Graduate Research Fellows in 2013.

As you consider funding levels for NSF, please consider ASA, CSSA, and SSSA as supportive resources. We hope you will call on our membership and scientific expertise whenever the need arises.

Thank you for your thoughtful consideration.

PREPARED STATEMENT OF THE AMERICAN SOCIETY FOR MICROBIOLOGY

The American Society for Microbiology (ASM) is pleased to submit the following testimony on the fiscal year 2013 appropriation for the National Science Foundation (NSF). ASM is the largest single-life science organization in the world with about 38,000 members. ASM endorses the administration's fiscal year 2013 request of \$7.373 billion for NSF, a 4.8-percent increase more than the fiscal year 2012 level. For more than 60 years, NSF grants have been responsible for breakthroughs in science, technology, engineering, and mathematics (STEM), sponsoring research with economic benefits and providing opportunities to train new generations of STEM professionals.

U.S. global competitiveness in science and technology can only be sustained by increased resources devoted to research and development (R&D). In NSF's most recent biennial Science & Engineering Indicators report, U.S. investment in R&D declined during the 1999–2009 period relative to other nations' investments. It is critical that funding be increased for the NSF because it is the primary source of Federal research funding in multiple STEM disciplines.

Each year, NSF distributes funds to about 1,900 colleges, universities, and other U.S. institutions. This year NSF will support about 285,000 researchers, postdoctoral fellows, and other trainees, teachers, and students. In fiscal year 2013, it expects to make more than 12,000 new awards selected from more than 55,000 submitted research proposals. NSF is responsible for 61 percent of the total Federal budget for basic academic research.

NSF's fiscal year 2013 budget will support the American Competitiveness Initiative and the National Bioeconomy Blueprint designed to resolve issues in health, food, energy, and the environment. NSF has launched several new initiatives to accelerate innovation, including the NSF Innovation Corps (I-Corps) program to build partnerships between NSF-funded researchers and the private sector. The Science, Engineering and Education for Sustainability (SEES) program will use sustainability science to generate important innovations in clean energy like microbial produced biofuels.

NSF-funded scientists contribute new information about living organisms that benefits public health, our economy, and the environment. In the past year, NSF-supported researchers at academic institutions have reported the following results, among many others:

- Electron microscopy and 3-D image reconstruction revealed the seahorse-shaped structure of a protein complex in *Escherichia coli* that can adapt to defend the bacteria against viruses and other microbial threats, indicating a bacterial immune system analogous in part to the human immune system.

- In stressful environments, *Bacillus subtilis* bacteria increase their survival by pulsing genes, like those initiating cell repair, on and off, counter to previous belief that once turned on, the genes remain active.
- Some patients develop blood infections from implanted cardiac devices because the biofilm bacteria involved have gene mutations that make the bacteria more likely to adhere to device surfaces, according to research partly funded by NSF's Directorate for Geosciences.
- Viruses known to infect *E. coli* bacteria (M13 phages) have been tricked into self-assembling as thin films with 3-D features like filaments or ridges, offering a potential nanoscale tool that might eventually lead to tissue regeneration and repair.
- Genetic sequencing of the bacteria that cause speck disease in tomatoes (*Pseudomonas syringae* pv. tomato), comparing isolates from 1975 and 2000, revealed that the economically important plant pathogen evolves more rapidly than expected, increasing its resistance to the tomato immune system and becoming more virulent.
- Novel therapeutics effective against drug-resistant influenza viruses might be developed using new research on the pocket-shaped surface cavities of avian influenza viruses that are targeted by flu drugs, based on computer simulations of how these cavities move and change.
- Scientists have sequenced the genomes of two fungal pathogens responsible for plant diseases that severely impact global food supplies, wheat stem rust and poplar leaf rust, in a 6-year collaborative program involving several universities, NSF, the U.S. Department of Energy, and the U.S. Department of Agriculture (USDA).

NATIONAL SCIENCE FOUNDATION FUNDING SUPPORTS DIVERSE RESEARCH IN
BIOLOGICAL SCIENCES

The fiscal year 2013 budget requests \$733.86 million for NSF's Directorate for Biological Sciences (BIO), a 3-percent increase more than the enacted fiscal year 2012 level. We are concerned that funding for the BIO divisions has remained essentially flat since fiscal year 2010. BIO-supported research contributes important insights and new knowledge across the wide spectrum of living organisms and systems, with obvious applications to public health. Fiscal year 2013 funding will further current BIO strategies that emphasize cross-cutting research combining several scientific disciplines or leveraging the interfaces between the physical and biological worlds.

Within its research portfolio, the Directorate invests in the five so-called Grand Challenges in Biology:

- synthesizing life-like systems;
- understanding the brain;
- predicting organisms' characteristics from their DNA sequences;
- elucidating interactions between the Earth, its climate and its biosphere; and
- understanding biological diversity.

BIO grant recipients and training programs seek answers to major problems like climate change, energy shortages, animal and plant diseases, and threats to our environment. In fiscal year 2013, BIO funding will be distributed among more than 18,000 scientists, students, and K-12 teachers to promote relevant research and education.

This year, the first test sites in the NSF-funded National Ecological Observatory Network (NEON) will be operational. NEON is a unique research infrastructure that will study all biological entities identified in large geographic areas over extended periods. Included in NEON research will be numerous studies of microbial communities, their responses to environmental change, and how they can be utilized in useful ways. Another large-scale NSF project with microbe-based components is the agency wide SEES program, distributing grants in bioremediation and microbial genetics.

BIO provides about 62 percent of Federal funding for nonmedical basic research in the life sciences at academic institutions and supports important microbial research. Over the past 2 years, BIO has awarded more than 580 grants worth about \$111 million to microbiology-related projects, which have advanced basic and applied microbiology, such as new ways to produce drugs against infectious diseases and potential remediation methods to clean polluted environments.

The Ecology and Evolution of Infectious Disease (EEID) program is a joint BIO effort in partnership with USDA's National Institute of Food and Agriculture and National Institutes of Health's (NIH) National Institute of General Medical Sciences. The principal focus is the dynamics of disease transmission, and the program supports academic research on the ecological, evolutionary, and socio-ecologi-

cal processes that determine the spread of diseases. Through this program, NSF multidisciplinary research is creating inventive approaches to controlling infectious diseases. Potential grantees are encouraged to utilize investigative teams of physicians, veterinarians, food scientists, virologists, and multiple other specialists in their proposals.

Last year, EEID-funded researchers identified the mosquito and bird species most responsible for West Nile virus transmission and linked bacteria in human sewage to white pox disease that is killing elkhorn coral in the Caribbean. Recently funded EEID projects include studies of the transmission of brucellosis among bison in Yellowstone Park, the spread of the fungal disease white-nose syndrome among hibernating bats, and how wildfires and extreme droughts affect the spread of the infectious plant disease called sudden oak death that has attacked millions of trees in California and Oregon. EEID's mission encompasses the varied factors that determine transmission of diseases to humans, nonhuman animals, and plants, enabling research in infectious disease not replicated elsewhere.

NATIONAL SCIENCE FOUNDATION FUNDING SUPPORTS BASIC RESEARCH IN ENGINEERING, MATHEMATICS, AND PHYSICAL SCIENCES

NSF supports interdisciplinary studies in all STEM fields as the boundaries have become increasingly blurred among biological, physical, and computing sciences. The Directorate for Engineering would receive \$873.33 million, an increase of 6.1 percent; the Directorate for Geosciences (GEO), \$906.44 million (2.4 percent); and the Directorate for Mathematical and Physical Sciences (MPS), \$1,345.18 million (2.8 percent).

GEO—which provides about 55 percent of Federal funding for basic geosciences research—supports diverse academic studies of the global environment. GEO-funded research, scientist training, and education contribute new knowledge about the oceans, our atmosphere, water quality, and other environmental systems. GEO funds help underwrite observatories, ocean drilling projects, and other large-scale programs that would be unlikely without NSF support. The resulting research also has added to our understanding of natural disasters like earthquakes and tornadoes. Geochemists' identified microbes in the Gulf of Mexico following the Deepwater Horizon oil spill that ingest natural gases like methane and ethane at cold temperatures, which should inform future contaminant remediation.

The Directorate of MPS provides one-half of the Federal funding for basic research at academic institutions. Its contributions to the SEES program include grant awards for sustainable chemistry research. MPS recently appointed a committee of external experts, called NSF Materials 2022, to develop future research strategies in materials science that will undoubtedly utilize biological systems among others. In fiscal year 2013, MPS also will continue its partnership with the BIO and ENG directorates in the Research at the Interface of the Biological, Mathematical and Physical Sciences (BioMaPS) program, which integrates biological, engineering, mathematical, and physical sciences to study naturally occurring networks. BioMaPS-funded projects generate bio-based materials, through new approaches to manufacturing devices and platforms. MPS funding for this creative program would increase 50 percent in fiscal year 2013, recognition of the potential contributions from mathematical and physical sciences to technologies like bioimaging, renewable fuels, and biosensors.

The Directorate for Engineering contributes about 35 percent of Federal funding for basic engineering research at academic institutions. Bioengineering research offers exciting new solutions to challenges faced in healthcare, environmental stewardship, and the U.S. economy. The Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET) underwrites SEES-related research and education aimed toward sustainability in water, climate, and energy. The CBET research portfolio includes emerging specialties like biosensing and investigations that involve engineers, life scientists, and bioinformatics experts.

CONCLUSION

ASM recommends that the Congress approve the administration's fiscal year 2013 budget request for the NSF, the Nation's principal sponsor of basic research in crucial technical areas. It is important that the Congress sustain NSF's proven successes in STEM-related research and education. By funding academic research, NSF serves the public as a partner in achieving our national imperative to enhance discovery and innovation across STEM disciplines.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

The recent heightened awareness around budget deficits and our Nation's fiscal health has catalyzed an important and timely discussion regarding how we begin to make the difficult decisions that will improve our long-term fiscal outlook. However, even in the frame of this discussion, it is critical that research and development remain one of the highest priorities for domestic discretionary spending. Scientific and engineering research has long been the foundation of our Nation's economic growth and prosperity. Our country's economic strength comes from our ability to produce the world's best scientists and engineers, nurture new ideas and innovation, and develop new technologies and industries. If America is to remain a global economic leader, we must continue to invest in the scientific and engineering enterprise that generates new technologies, industries and jobs.

The American Society of Mechanical Engineers (ASME) Knowledge & Community Sector National Institute of Standards and Technology (NIST) Task Force is pleased to have this opportunity to provide comments on the fiscal year 2013 budget request for NIST. The NIST Task Force and ASME Standards & Certification have a long-standing relationship with NIST and thus recognize NIST as a key Government agency that contributes significantly to the development and application of technology.

In the President's fiscal year 2013 budget request, the Task Force supports the proposed increases for NIST programs, which are consistent with the doubling path by fiscal year 2017 identified by the administration as a goal for NIST.

Introduction to American Society of Mechanical Engineers and the National Institute of Standards and Technology Task Force

Founded in 1880 as the American Society of Mechanical Engineers, ASME is a worldwide engineering society of more than 120,000 members focused on technical, educational and research issues. ASME conducts one of the world's largest technical publishing operations, holds approximately 30 technical conferences and 200 professional development courses each year, and sets many industry and manufacturing standards.

Mechanical engineers play a key role in the research, technology development, and innovation that influence the economic well-being of the Nation. ASME has supported the mission of NIST since it was founded in 1901, as the National Bureau of Standards. In fact, ASME was instrumental in establishing the Department of Commerce, NIST's parent agency. The technical programs of NIST are unique in that they foster Government and industry cooperation through cost-sharing partnerships that create long-term investments based on engineering and technology. These programs are aimed at providing the technical support so vital to our Nation's future economic health.

Overview of NIST's Fiscal Year 2012 Budget Request

The administration's budget request for NIST in fiscal year 2013 is \$857 million. This represents a \$106.2 million increase more than the fiscal year 2012 appropriated amount. This year, the administration has also identified \$1.3 billion in mandatory spending; \$300 million to support a Wireless Innovation Fund, and \$1 billion for a National Network for Manufacturing Innovation.

Although the NIST Task Force is pleased to see the administration seeking higher funding for NIST, we remain concerned that the cancellation of NIST programs such as the Technology Innovation Partnership (TIP) as well as the Baldrige Performance Excellence Program may obstruct the path toward a high-technology manufacturing economy as envisioned by President Barack Obama. The Task Force would also note that the budget increases proposed for fiscal year 2013 would come on the heels of a previous discretionary budget cycle that was flat overall for NIST.

This budget includes \$648 million for the Scientific and Technical Research and Services (STRS), NIST laboratory research, which is \$81 million more than the fiscal year 2012 appropriated amount. The fiscal year 2013 budget would provide \$572.7 million to support laboratory programs, a \$54.7 million increase more than the fiscal year 2012 appropriated amount. This is reflective of the desire expressed by Under Secretary of Commerce and Director of NIST Patrick Gallagher last year to discontinue the Baldrige program and identify private sector funding sources for its continuation. There is no set timetable for this to take place.

A large portion of the NIST budget is devoted to the Industrial Technology Services (ITS) programs, which previously consisted of the Technology Innovation Program (TIP). Now, ITS is mostly devoted to the Hollings Manufacturing Extension Partnership (MEP), which would receive \$149 million in fiscal year 2013, a \$20.6 million increase more than the fiscal year 2012 appropriated amount. In more recent years, the erosion of U.S. manufacturing jobs has become a key issue for the

MEP to develop sustainable practices for industries in the United States. The MEP incorporates competitive business practices and technologies into small- to medium-sized enterprises—companies that create a significant number of jobs. The administration's request of \$149 million reflects the importance of NIST as a part of the administration's goals for innovation, as well as harkens to the bipartisan America COMPETES Act. The NIST Task Force has long supported MEP as a catalyst for technological innovation and is pleased with the administration's support for this program as NIST seeks to facilitate the development of new industries that will catalyze manufacturing and industrial practices in the United States. The Task Force supports the total request to fund the ITS in fiscal year 2013.

NIST has again proposed the creation of a new program called the Advanced Manufacturing Technology Consortia (AMTech) but has asked for \$21 million instead of the \$12.3 million it requested in fiscal year 2012, when it did not receive funding from the Congress. According to NIST, the program will also be "based on NIST's experience with the Nanoelectronics Research Initiative (NRI) partnership." The program has been described as a vehicle for aiding private industry seeking to develop nanotechnology products for the manufacturing sector. AmTech will seek to assemble a consortium of public and private stakeholders to identify, and collectively fund, long-term technical challenges to this high-technology manufacturing sector. Unlike TIP, there is no cost share requirement for AmTech. This program effectively demonstrates the value of NIST as a convener of U.S. stakeholders to collectively work toward the establishment of groundbreaking new industries like the nanotechnology field. Although, difficult fiscal challenges lay ahead, the Task Force strongly urges the Congress to honor the request to fund AmTech in fiscal year 2013, and the Task Force was disappointed that the Congress did not fund AmTech in fiscal year 2012. We believe that investment should be made into initiatives such as the AMTech program because of their potential for high return on investment and to maintain global U.S. competitiveness.

Finally, the Construction of Research Facilities (CRF), which would receive \$60 million, a 19-percent increase from the fiscal year 2012 enacted amount of \$48.2 million. This category includes \$11.8 million for the renovation of the 60-year-old Building 1 of the NIST Boulder laboratories. NIST laboratories remain a critical resource that is vital to the economic health and national security of the United States as outlined in the President's Innovation Agenda, inspired, in part, by the original America COMPETES Act of 2007 (Public Law 110-69). The NIST engineering laboratory "promotes the development and dissemination of advanced technologies, guidelines, and services to the U.S. manufacturing and construction industries through activities including measurement science research, performance metrics, tools and methodologies for engineering applications, and critical technical contributions to standards and codes development."

NIST's Standards Mission

Part of the mission of NIST is to promote the use of American standards, conformity assessment programs and technology in countries and industries around the world as a means of enhancing U.S. competitiveness and opening new markets for U.S. products and services. Standards provide technical definitions and guidelines for design and manufacturing. They serve as a common global language, define quality and establish safety criteria. In the United States, standards are developed by private-sector organizations such as ASME in close collaboration with representatives from industry, government, and academia. These standards are used by industry and also frequently adopted by Government agencies as a means of establishing regulatory requirements. They are vital to the economic health of many industries, and—more importantly—they help to ensure the health and safety of the American people and of citizens in countless nations around the world.

Over the years, the Department of Commerce and NIST have played an indispensable role in ensuring acceptance by other nations of U.S.-developed standards that continue to identify and incorporate technological advances and that also reflect changing needs for industry, regulation, and public safety. The Congress must be aware that, unlike in the United States where standards development is largely the province of private sector organizations, standards development in many other countries is undertaken with strong government support. The U.S. voluntary consensus standards process enables innovation, reduces redundancy in public and private sector research, and reduces Government costs. The governments of many of our key trading partners invest significant resources to promote acceptance of competing standards (developed by organizations in those countries) in the global marketplace. It is therefore essential that the U.S. Government, in partnership with private sector standards development organizations, strengthen its commitment to ensuring adequate representation of U.S. interests in international standards negotiations.

Enabling U.S. manufacturers to design and build to one standard or set of standards increases their competitiveness in the world market. The ability of NIST to assist U.S. domiciled standards developers in their negotiations with international and national standards organizations is important to the U.S. business community. The United States must be a full participant in global standards development if our industries are to compete effectively in a world market. Decisions made in standards bodies outside the United States have a profound impact on the ability of U.S. companies to compete in foreign markets. We believe that NIST plays a unique and crucial role in maintaining, and growing, the competitive edge of U.S. industry in the emerging landscape of the high technology manufacturing sector.

Conclusion

The administration's commitment to NIST appears to be strong, as demonstrated by their willingness to support increases for key NIST initiatives for fiscal year 2013. While the Task Force would prefer to see the resurrection of the TIP program, the Task Force remains strongly supportive of these initiatives as well as the underlying goals of NIST as it relates to advanced manufacturing and technological innovation.

ASME is a nonprofit technical and educational organization with more than 120,000 members globally. ASME's members work in all sectors of the economy, including industry, academia, and government. This position statement represents the views of the NIST Task Force of the ASME Technical Communities of the Knowledge & Community Sector and is not necessarily a position of ASME as a whole.

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

On behalf of the American Society of Plant Biologists (ASPB), we submit this testimony for the official record to support the requested level of \$7.373 billion for the National Science Foundation (NSF) for fiscal year 2013. ASPB and its members recognize the difficult fiscal environment our Nation faces, but believe that investments in scientific research will be a critical step toward economic recovery and continued global competitiveness.

ASPB would like to thank the subcommittee for its consideration of this testimony and for its strong support for the research mission of NSF.

Our testimony will discuss:

- Plant biology research as a foundation for addressing food, fuel, environment, and health concerns;
- The rationale for robust funding for NSF to maintain a well-proportioned science portfolio with support for all core science disciplines, including biology; and
- The rationale for continued funding of NSF education and workforce development programs that provide support for the future scientific and technical expertise critical to America's competitiveness.

ASPB is an organization of approximately 5,000 professional plant biology researchers, educators, graduate students, and postdoctoral scientists with members in all 50 States and throughout the world. A strong voice for the global plant science community, our mission—achieved through work in the realms of research, education, and public policy—is to promote the growth and development of plant biology, to encourage and communicate research in plant biology, and to promote the interests and growth of plant scientists in general.

FOOD, FUEL, ENVIRONMENT, AND HEALTH: PLANT BIOLOGY RESEARCH AND AMERICA'S FUTURE

Plants are vital to our very existence. They harvest sunlight, converting it to chemical energy for food and feed; they take up carbon dioxide and produce oxygen; and they are the primary producers on which all life depends. Indeed, plant biology research is making many fundamental contributions in the areas of energy security and environmental stewardship; the continued and sustainable development of better foods, fabrics, and building materials; and in the understanding of biological principles that underpin improvements in the health and nutrition of all Americans.

In particular, plant biology is at the interface of numerous scientific breakthroughs. For example, with high throughput experimental approaches facilitating extraordinary syntheses of information that are supported by the NSF, plant biologists are using computer science applications to make tremendous strides in our understanding of complex biological systems, ranging from single cells to entire ecosystems. Understanding how plants work will ultimately result in better and more

productive crops, new sources of fuel, and the development of better medicines to treat diseases like cancer.

Despite the fact that foundational plant biology research—the kind of research funded by NSF—underpins vital advances in practical applications in agriculture, health, energy, and the environment, the amount of money invested in understanding the basic function and mechanisms of plants is surprisingly small. This is especially true considering the significant positive impact plants have on the Nation's economy and in addressing some of our most urgent challenges, including food and energy security.

Understanding the importance of these areas and in order to address future challenges, ASPB organized the Plant Science Research Summit held in September 2011. With funding from the NSF, Departments of Agriculture and Energy, and the Howard Hughes Medical Institute, the Summit brought together representatives from across the full spectrum of plant science research to identify critical gaps in our understanding of plant biology that must be filled over the next 10 years or more in order to address the grand challenges facing our Nation and our planet. The grand challenges identified at the Summit include:

- In order to feed everyone well, now and in the future, advances in plant science research will be needed for higher yielding, more nutritious varieties able to withstand a variable climate;
- Innovations leading to improvements in water use, nutrient use, and disease and pest resistance that will reduce the burden on the environment are needed and will allow for increases in ecosystem services, such as cleaner air, cleaner water, fertile soil, and biodiversity benefits like pest suppression and improved pollination;
- To fuel the future with clean energy, improvements in current biofuels technologies, including breeding, crop production methods, and processing that will help meet our Nation's fuel requirements for the future are needed; and
- For all the benefits that advances in plant science bestow—in food and fiber production, ecosystem and landscape health, and energy subsistence—to have lasting, permanent benefit they must be economically, socially, and environmentally sustainable.

In spring 2012, a report from the Plant Science Research Summit will be published. This report will further detail priorities and needs to address the grand challenges.

ROBUST FUNDING FOR THE NATIONAL SCIENCE FOUNDATION

The fiscal year 2013 NSF budget request would fund the NSF at \$7.373 billion. ASPB supports this request and encourages proportional funding increases across all scientific disciplines supported by the NSF. As scientific research becomes increasingly interdisciplinary with permeable boundaries, a diverse portfolio at the NSF is needed to maintain transformational research and innovation.

NSF funding for plant biology specifically enables the scientific community to address cross-cutting research questions that could ultimately solve grand challenges related to a sustainable food supply, energy security, and improved health. This idea is reflected in the National Research Council's report "A New Biology for the 21st Century" and will be addressed comprehensively in the Plant Science Research Summit's report.

The NSF Directorate for Biological Sciences (BIO) is a critical source of funding for scientific research, providing 62 percent of the Federal support for nonmedical basic life sciences research at U.S. academic institutions and beyond. BIO supports research ranging from the molecular and cellular levels to the organismal, ecosystem, and even biosphere levels. These investments continue to have significant payoffs, both in terms of the knowledge directly generated and in deepening collaborations and fostering innovation among communities of scientists.

The Biological Sciences Directorate's Plant Genome Research Program (PGRP) is an excellent example of a high-impact program that has laid a strong scientific research foundation for understanding plant genomics as they relate to energy (biofuels), health (nutrition and functional foods), agriculture (impact of changing climates on agronomic ecosystems), and the environment (plants' roles as primary producers in ecosystems). ASPB asks that the PGRP be funded at the highest-possible level and have sustained funding growth over multiple years to address 21st century challenges.

Without significant and increased support for BIO and NSF as a whole, promising fundamental research discoveries will be delayed and vital collaborations around the edges of scientific disciplines will be postponed, thus limiting the ability to respond to the pressing scientific problems that exist today and the new challenges on the

horizon. Addressing these scientific priorities also helps improve the competitive position of the United States in a global marketplace.

CONTINUED SUPPORT FOR NATIONAL SCIENCE FOUNDATION EDUCATION AND
WORKFORCE DEVELOPMENT PROGRAMS

NSF is a major source of funding for the education and training of the American scientific workforce and for understanding how educational innovations can be most effectively implemented. NSF's education portfolio impacts students at all levels, including K-12, undergraduate, graduate, and postgraduate, as well as the general public.

The Integrative Graduate Education and Research Traineeship (IGERT) program is just one example of NSF's commitment to education that has been successful in fostering the development of novel programs that provide multidisciplinary graduate training. ASPB encourages expansion of the IGERT program in order to foster the development of a greater number of innovative science leaders for the future.

Furthermore, ASPB urges the subcommittee to support the fiscal year 2013 request to expand NSF's fellowship and career development programs—such as the Postdoctoral Research Fellowships in Biology, the Graduate Research Fellowship and the Faculty Early Career Development programs—thereby providing continuity in funding opportunities for the country's most promising early career scientists. ASPB further encourages the NSF to develop "transition" awards that will support the most promising scientists in their transition from postdoctoral research to independent, tenure-track positions in America's universities. The NSF might model such awards after those offered by the National Institutes of Health.

ASPB urges support for NSF to further develop programs aimed at increasing the diversity of the scientific workforce by leveraging professional scientific societies' commitment to provide a professional home for scientists throughout their education and careers and to help promote and sustain broad participation in the sciences. Discreet focused training and infrastructure support programs for Hispanic Serving Institutions, Historically Black Colleges and Universities, and Tribal Colleges and Universities remain vitally important, as they foster a scientific workforce that reflects the U.S. population.

ASPB urges support for education research that enhances our understanding of how educational innovations can be sustainably implemented most effectively in a variety of settings. NSF programs such as Transforming Undergraduate Education in STEM, Discovery Research K-12, and Widening Implementation and Demonstration of Evidence-based Reforms provide opportunities to expand NSF's research and evaluation efforts to address scale-up and sustainability. Additionally, investigating and supporting effective approaches toward rolling out across the K-16 continuum the new vision for undergraduate biology education articulated in the 2010 Vision and Change report are particularly valuable. ASPB encourages continued support for education research programs within NSF's Education and Human Resources portfolio with a focus on understanding how previous investments in educational strategies can be made most effective.

Grand research challenges will not be resolved in a year, an administration, or a generation, but will take continued attention and investment at Federal research agencies, such as the NSF, over decades.

Thank you for your consideration of our testimony on behalf of the American Society of Plant Biologists.

PREPARED STATEMENT OF THE ANIMAL WELFARE INSTITUTE

We wish to thank the subcommittee for accepting our testimony as you consider fiscal year 2013 funding priorities under the Commerce, Justice, Science, and Related Agencies appropriations bill. Our testimony addresses activities under the Office of Justice Programs (OJP) of the Department of Justice (DOJ).

We are grateful for the DOJ's OJP Bureau of Justice Assistance's continuing support for the Association of Prosecuting Attorneys' (APA) program of training, technical support, and other assistance for prosecutors, law enforcement, and other involved parties to enhance the prosecution of animal abuse and animal fighting crimes. This is a very exciting development; we are proud to partner with APA in this ongoing effort (I would note that Animal Welfare Institute (AWI) does not receive any Federal funding for its work with APA), and I am pleased to be able to share with you the work that has been done as a result of BJA's support.

APA is currently planning its third national training conference for October in Los Angeles, having already held conferences in Washington, DC and Colorado. These national meetings bring together participants and speakers from many disciplines—

law enforcement, psychology, animal control, veterinary medicine, the domestic violence and juvenile justice communities, etc.—to share their experiences dealing with animal cruelty and animal fighting, and to encourage cross-pollination among participants. Topics have included the basics of conducting an animal cruelty investigation; charging, prosecuting, and sentencing in animal cruelty cases; the use of forensics experts in court; the relationship between animal cruelty and other forms of interpersonal violence; and cutting edge considerations with the use of digital evidence. Participants then put theory into practice through a mock trial.

As an example of the impact that such training can have, an assistant prosecutor from a large urban county attended the very first conference. He and a colleague were taking on animal cruelty cases on their own, in addition to their regular caseload, and were feeling very much out in the wilderness. Today, their animal protection unit boasts four prosecutors who review and handle all animal-related cases (as well as other cases) and over the past 3 years has achieved a 98-percent conviction rate. (Both of the original assistant prosecutors are now members of the APA's Animal Cruelty Advisory Council, discussed below.) One of the unit's cases resulted in significant jail time for two men who set fire to a dog in front of several witnesses, including children.

Training and outreach do not stop with these large meetings, however. APA maintains a listserv and also runs a series of successful webinars addressing issues of practical concern to prosecutors and the many others whose work is connected with animal cruelty crimes. Thus far, the sessions have covered obtaining search warrants in animal cruelty cases; puppy mills; dog fighting; cockfighting; and veterinary forensics in cruelty cases. Three more webinars are scheduled for 2012.

APA has responded to more than 250 requests for technical assistance, either directly or through referral to appropriate experts. The Animal Cruelty and Fighting Program section of its Web site makes available such valuable resources as training and informational manuals; State animal cruelty statutes; animal cruelty case law summaries (developed as part of a project with the George Washington University School of Law); a library of briefs, motions, search warrants, and legal memos; and downloadable versions of the webinars.

APA also publishes, distributes, and posts on its Web site the newsletter *Lex Canis*, each issue of which (there have been nine so far) provides readers with program updates, an in-depth feature, and summaries of investigations, cases, changes in the law, and other developments. For example, recent features have focused on strategies for achieving success in prosecuting cases under State animal cruelty laws; dealing with hoarders; the innovative work of the Mayor's Anti-Animal Abuse Advisory Commission in Baltimore; and, in its very first issue in 2009, the effect of the foreclosure crisis on rising abuse and abandonment of companion animals.

APA and AWI have taken advantage of opportunities to address new audiences about the relationship between animal cruelty and interpersonal violence, and how those audiences can respond both to improve prosecutions of such cases and to reduce their incidence. Several presentations were made to the National Conference of Juvenile and Family Court Judges and to the Pennsylvania Bar Institute.

Last but not certainly not least, APA has assembled an Animal Cruelty Advisory Council composed of prosecutors, investigators, law enforcement, veterinarians, psychologists, members of the animal protection and domestic violence communities, and others, to identify issues, resource needs, and strategies. It brings these same professionals together to provide its multidisciplinary training, and also calls on them individually for topic-specific web-based training and materials.

We respectfully urge the subcommittee to continue funding the BJA's National Animal Cruelty and Fighting Initiative and to encourage DOJ's ongoing interest in addressing animal-related crimes because more vigorous attention to such crimes is a valuable tool for making communities safer overall.

The connection between animal abuse and other forms of violence has been firmly established through experience and through scientific studies. Among the most well-documented relationships is that between animal cruelty and domestic violence, child abuse, and elder abuse. For example, up to 71 percent of victims entering domestic violence shelters have reported that their abusers threatened, injured, or killed the family pet; batterers do this to control, intimidate, and retaliate against their victims. Batterers threaten, harm, or kill their children's pets in order to coerce them into allowing sexual abuse or to force them into silence about abuse.¹ Criminals and troubled youth have high rates of animal cruelty during their child-

¹The study "I'll only help you if you have two legs", or "Why human services professional should pay attention to cases involving cruelty to animals", by Loar (1999), as cited on the Web site of the National Coalition Against Domestic Violence (www.ncadv.org).

hoods, perpetrators were often victims of child abuse themselves,² and animal abusers often move on to other crimes. In 1997, the Massachusetts Society for the Prevention of Cruelty to Animals (MSPCA) released the results of a review of animal cruelty cases it had prosecuted between 1975 and 1996. Seventy percent of the individuals involved in those cases had been involved in other crimes, and animal abusers were five times more likely to commit a violent offense against other people.

More recently, an FBI special agent (who is also a member of the APA's Animal Cruelty Advisory Council) is currently overseeing a research project that involves "analyzing the criminal histories of offenders who were arrested for active animal cruelty, in order to further examine the potential link between animal cruelty and violence against persons. According to an initial analysis published in a dissertation (Leavitt, 2011), the majority of the 66 offenders examined so far "had prior arrests for other crimes", including interpersonal violence (59 percent), assault (39 percent), and assault of a spouse or intimate partner (38 percent); 17 percent had a history of sexual offenses.

Another connection that is all too common exists among animal fighting (which includes both dogfighting and cockfighting), gangs, and drugs, illegal guns, and other offenses. The Animal Legal and Historical Center at the Michigan State University College of Law describes dogfighting in these stark terms:

"The notion that dogfighting is simply an animal welfare issue is clearly erroneous. Until the past decade, few law enforcement officials or government agencies understood the scope or gravity of dogfighting. As these departments have become more educated about the epidemic of dogfighting and its nexus with gang activity, drug distribution rings, and gambling networks, many have implemented well-designed, sophisticated task forces. The magnitude of criminal activity concurrently taking place at the average dogfight is of such a scope as to warrant the involvement of a wide range of agencies, including local, regional, and Federal law enforcement agencies and their specialized divisions such as organized crime units, SWAT teams, and vice squads, as well as animal control agencies and child protective services."

Further evidence of the accuracy of the above assessment comes from a Drug Enforcement Administration report on the sentencing of a Louisiana drug trafficking kingpin, which described him as "an avid pit bull and cock fighter [who] utilized these illegal events as a networking tool in order to recruit members to transport and sell marijuana and cocaine for his organization."

Animal fighting is barbaric and is a violent crime in the truest sense of the term. It causes immense suffering to countless numbers of innocent animals and its presence threatens the safety of the entire community. It is illegal under both State and Federal law, so it well serves the entire community for law enforcement to have the most powerful tools possible to eradicate it. In fact, legislation has been introduced in the House and Senate that would add to these tools by closing a significant loophole in the law. Animal fighting is fueled not just by those who train and fight the animals and finance the fights, but also by spectators. Spectators are not innocent bystanders; they are active participants in and enablers of these criminal enterprises—and they also provide "cover" during raids by allowing the organizers, trainers, etc., to "blend into the crowd" to escape arrest. The Animal Fighting Spectator Prohibition Act (H.R. 2492 and S. 1947) makes knowingly attending an animal fight punishable by fines and jail time and also makes it a separate offense, with higher penalties, to knowingly bring a minor to such an event. Forty-nine States have already outlawed attendance at an animal fight.

At the same time, it must be remembered that animal abuse is more than a "gateway" behavior. It is also a crime in its own right. It is a crime everywhere in the United States, and certain egregious acts are felonies in 47 States (it was 46 this time last year) and the District of Columbia. Some States have even enacted or are considering provisions that enhance the penalty for animal cruelty when it is committed in front of a child. Twenty-two States also now allow the inclusion of companion animals in domestic violence restraining orders.

All laws are not created equal, however; activity that constitutes a felony in one State may still only be a misdemeanor in another. In some States, cruelty rises to a felony only upon a second or third offense, or only if the animal dies; if he survives, no matter how severe his injuries, it is still a misdemeanor.

The key to offering animals the most protection possible, however weak or strong the statute, lies in ensuring both awareness of the law and vigorous enforcement of that law and prosecution of violators. While there are many in law enforcement

²"Woman's Best Friend: Pet Abuse and the Role of Companion Animals in the Lives of Battered Women," by Flynn (2000), as cited at www.ncadv.org.

and the courts who recognize animal abuse for the violent crime that it is and act accordingly, there are those who do not take it seriously, treating it as no more urgent than a parking infraction. Others genuinely want to act decisively but may lack the necessary resources, support, or expertise. Moreover, enforcement can be complicated by the laws themselves—weak laws are bad enough, but additional problems may arise from confusion over jurisdiction or limitations in coverage—or by pressure to dispose of cases quickly.

BJA's National Animal Cruelty and Animal Fighting Initiative is so valuable and forward-thinking in recognizing that animal cruelty and animal fighting crimes not only victimize some of the most innocent and vulnerable members of society, but also create a culture of violence—and a cadre of violent offenders—affecting children, families in general, and society at large. Therefore, preventing and prosecuting these crimes will benefit not only the animals, but also the entire community by reducing the overall level of violence.

OJP/BJA showed great vision in recognizing that by identifying precursor crimes, such as animal cruelty and animal fighting, and ensuring proper adjudication of such cases, our criminal justice system can reduce the incidence of family and community violence and change the path of potential future violent offenders. It is especially with respect to that latter goal that APA and AWI are also calling attention to the impact that experiencing animal cruelty has on children and their possible future involvement in the juvenile justice system; many youths in juvenile detention facilities have been exposed to community and family violence—which arguably includes animal fighting and abuse.

There are two audiences for the message and resources the BJA initiative makes available:

- those who still need to be convinced of the importance of preventing and punishing animal-related crimes, for the sake both of the animals and of the larger community; and
- those who are dedicated to bringing strong and effective cases against animal abusers but may need assistance to do so.

The National Animal Cruelty and Animal Fighting Initiative sends a very strong message to prosecutors and law enforcement that crimes involving animals are to be taken seriously and pursued vigorously, and offenders must be held accountable.

PREPARED STATEMENT OF THE CALIFORNIA COASTAL COMMISSION

Many of our Nation's most urgent issues—the economy, energy policy, environmental protection, and climate change—converge along our Nation's coasts. Coastal areas are home to more than one-half of the Nation's population and a diversity of natural resources, species, and habitats. Our coasts are also critical economic drivers; collectively coastal economies contribute almost one-half of the Nation's GDP, providing jobs, recreation and tourism, coastal and ocean dependent commerce, and energy production.

In California, for example, the State's ocean-dependent economy is estimated at almost \$36 billion per year.¹ Almost 70 percent of Californians live and nearly 80 percent of California's jobs exist along bay or coastal areas and face hazardous conditions now and in the future.² California's coastal tourism and recreation economy, valued at \$12 billion in 2009 and employs more than 300,000 people, more than any other ocean economy industry in California.¹

The U.S. Congress recognized the importance of the Nation's coasts by passing the Coastal Zone Management Act (CZMA) in 1972. The act, administered by the National Oceanic and Atmospheric Administration (NOAA), provides for management of the Nation's coastal resources, including the Great Lakes, and balancing economic development with environmental conservation. CZMA also establishes a Federal-State partnership by giving State's the opportunity to manage coastal resources in concert with the Federal Government through federally approved State Coastal Management Programs (CMP). California's CMP is designed to comprehensively manage coastal resources using a variety of planning, permitting, public education, and nonregulatory mechanisms. Successful implementation of the CMP depends on cooperation between Federal, State, and local agencies and requires that California balance the demands for development with the need to conserve natural resources, providing for sound, responsible stewardship of one of the Nation's most spectacular coastlines.

¹ <http://www.oceaneconomics.org/Market/coastal/coastalEcon.asp>.

² Griggs, G. (1999). The Protection of California's Coast: Past, Present and Future. *Shore and Beach* 67(1): 18–28.

Federal approval of a State program also provides the State CMP agencies with Federal funding through Coastal Zone Management State Grants. For the fiscal year 2013, the California Coastal Commission requests that these grants be funded at least \$67 million, consistent with last year's funding and the fiscal year 2013 President's budget. This funding is critically important to the maintaining current staffing and operational levels of California's Coastal Management Program agencies:

- the California Coastal Commission;
- the San Francisco Bay Conservation and Development Commission; and
- the State Coastal Conservancy.

Federal funds are matched by the State dollars and are often further leveraged by private and local investment in our Nation's coasts.

Maintaining funding for these programs that provide on-the-ground services to our local communities and citizens is well worth the investment. The Federal funds that California receives will directly support processing of hundreds of coastal development permits, reviewing approximately 125 Federal consistency determinations, and addressing the more than 1,650 pending enforcement cases. These actions provide for environmentally sustainable development and related economic growth, while recognizing the protections that are needed for California's coast to maintain its natural and scenic beauty, ensure healthy air and clean water for coastal communities, and support coastal tourism that is so critical to the State's economy. In addition, this funding will support the work that the California Coastal Commission is doing to help communities prepare for and address threats from coastal hazards resulting from increased flooding and sea level rise.

The CZMA State grants have essentially remained level-funded for a decade, resulting in a decreased capacity in the State coastal zone management programs and less funding available to communities. An increase in funding to \$91 million would mean level funding that accounts for inflation over the last decade and would provide an additional \$300,000 to \$800,000 for each State and territory. The California Coastal Commission recognizes, however, that the fiscal climate makes this type of an increase difficult if not impossible. At current funding levels, California will receive approximately \$2,000,000 to carry out its coastal management program based on a formula accounting for shoreline miles and coastal population. Any additional funding to the CZMA State grant line item would be welcome, especially to account for the recent addition of Illinois as a State with an approved coastal program in January 2012.

The California Coastal Commission also supports funding for the National Estuarine Research Reserve System (NERRS)—another Federal program authorized under the CZMA that establishes a partnership with States and territories to ensure long-term education, stewardship, and research on estuarine habitats and provides a scientific foundation for coastal management decisions. This unique site-based program around the Nation contributes to a systemic research, education, and training on the Nation's estuaries. To that end, we request level funding in fiscal year 2013 for the National Estuarine Research Reserve System at \$22.3 million. The NERRS in the State of California at San Francisco Bay, Elkhorn Slough (Monterey) and Tijuana River are a tremendous educational resource for the public and for State and local coastal management professionals who directly benefit from the trainings that are provided at little or no cost. Given the lack for funding at the State and local level, planning professionals at State agencies and local governments will likely receive little to no professional training on the addressing some of the Nations most pressing coastal management issues without level funding for the NERRS.

The California Coastal Commission greatly appreciates the support the subcommittee has provided to these programs in the past, thus facilitating the Federal and State governments working together to protect our coasts and sustain our local communities. We appreciate your taking our requests into consideration as you move forward in the fiscal year 2013 appropriations process.

PREPARED STATEMENT OF THE COASTAL STATES ORGANIZATION

The Coastal States Organization (CSO) is a nonpartisan, nonprofit organization in Washington, DC, that represents the interests of the Governors of the 35 coastal States, territories, and commonwealths. Established in 1970, CSO focuses on legislative and policy issues relating to the sound management of coastal, Great Lakes, and ocean resources and is recognized as the trusted representative of the collective interests of the coastal States on coastal and ocean management. For fiscal year

2013, CSO supports the following coastal programs and funding levels within the National Oceanic and Atmospheric Administration (NOAA):

- Coastal Zone Management Program (§§ 306/306A/309)—\$67 million;
- Coastal and Estuarine Land Conservation Program—\$20 million;
- Regional Ocean Partnerships—\$10 million; and
- National Estuarine Research Reserve System—\$22.3 million.

Every American, regardless of where they live, is fundamentally connected to U.S. coasts, oceans, and Great Lakes. These valuable resources are a critical framework for commerce, recreation, energy, environment, and quality of life. The U.S. economy is an ocean and coastal economy: though Federal investment does not reflect it, the oceans and coasts provide an irreplaceable contribution to our Nation's economy and communities. With sectors including marine transportation, tourism, marine construction, aquaculture, ship and boat building, mineral extraction, and living marine resources, the U.S. ocean-based sector alone provides \$138 billion to U.S. gross domestic product and more than 2.3 million jobs to our citizens. In addition, the annual contribution of coastal counties is in the trillions, from ports and fishing to recreation and tourism. In 2007, our Nation's coastal counties provided \$5.7 trillion to the economy and were home to 108.3 million people on a land area that is only 18 percent of the total U.S. land area. If these counties were their own country, they would represent the world's second-largest economy. Coasts and oceans also add to the quality of life to the nearly one-half of all Americans who visit the seashore each year; the nonmarket value of recreation alone is estimated at more than \$100 billion.

Today, our Nation's coasts are as vital for our future as they are vulnerable. As a result of their increasing recreational and residential appeal and economic opportunity, we are exerting more pressure on our coastal and ocean resources. This demand, combined with an increase in natural hazards such as sea level rise, hurricanes and other flooding events, endangers the country by the potential loss of these invaluable assets. Despite the difficult budgetary times, adequate and sustained funding is needed to support the key programs that implement national priorities on the ground by utilizing the advances in coastal and ocean science, research, and technology to manage our coastal and ocean resources for future generations.

These programs reside within NOAA and provide direct funding or services to the States, territories, and regions to implement national coastal and ocean priorities at the State, local, and regional level. Programs that are engaged in these important efforts and working to balance the protection of coastal and ocean resources with the need for sustainable development include the Coastal Zone Management Program, Coastal and Estuarine Land Conservation Program, Regional Ocean Partnerships and National Estuarine Research Reserves.

Coastal Zone Management (CZM) Program (§§ 306/306A/309)

CSO requests that CZM grants be funded at \$67 million, a consistent level with last year's funding with a small increase to account for Illinois' entrance into the program. This funding will be shared among the 34 States and territories that have approved coastal zone management programs. Pursuant to the Coastal Zone Management Act (CZMA), States partner with NOAA to implement coastal zone management programs designed to balance protection of coastal and ocean resources with the need for sustainable development of coastal communities. States have the flexibility to develop programs, policies and strategies that are targeted to their State priorities while advancing national goals. Under the CZMA program, the States receive grants from NOAA that are matched by the States and are used to leverage significantly more private and local investment in our Nation's coastal areas. These grants have been used to maintain and grow coastal economies by reducing environmental impacts of coastal development, resolving conflicts between competing coastal uses, and providing critical assistance to local communities in coastal planning and resource protection.

The CZMA State grants have essentially remained level-funded for a decade, resulting in a decreased capacity in the State coastal zone management programs and less funding available to communities. An increase in funding to \$91 million would mean level funding that accounts for inflation over the last decade and would provide an additional \$300,000 to \$800,000 for each State and territory; however, CSO recognizes that the fiscal climate makes this type of an increase difficult, if not impossible. At maintained current funding levels, States and territories would receive between \$850,000 and just more than \$2,000,000 to carry out their coastal management programs based on a formula accounting for shoreline miles and coastal population. Any additional funding over current funding levels would account for the addition of Illinois as a State with an approved coastal program (which just occurred January 2012). Illinois will be eligible to receive the maximum allotted funds of

\$2,000,000. With an increase, States' funding would not be diluted with the addition of Illinois into the program and could focus on activities that support coastal communities and economies such as addressing coastal water pollution, working to conserve and restore habitat, helping plan with and educate communities, providing for public access to the shore and preparing to adapt to changing sea and lake levels and the threat of increasing storms.

Several years ago and appropriate at the time, a cap of approximately \$2,000,000 was instituted to allow for funding to be even across the States and territories. Now, more than one-half of the States have met the cap and no longer receive an increase in funding, despite increased overall funding for CZMA State grants since that cap was introduced. Therefore, CSO requests that language be included in the appropriations bill declaring that each State will receive no less than 1 percent and no more than 5 percent of the additional funds more than previous appropriations. As was provided for in fiscal year 2010, CSO requests that language be included in the appropriations bill that directs NOAA to refrain from charging administrative costs to these grants. This is to prevent any undue administrative fees from NOAA from being levied on grants intended for States.

The following are a few examples of activities in Maryland and Texas recently funded through State grants. These types of contributions and more can be found around the Nation.

Maryland

CZMA funding assisted four communities (Anne Arundel, Queen Anne's, and Talbot counties, and the city of Annapolis) in reducing vulnerability to future storm events, shoreline change and sea level rise and incorporating those considerations into local plans, codes, and ordinances. CZMA funding assisted 11 communities in designing nonpoint source reduction projects which help the State and local communities meet water-quality goals by reducing runoff in the State's coastal waterways.

Maryland's CZM Program worked with land conservation partners to preserve 1,150 acres of critical coastal habitat for storm protection, water-filtering benefits, fish nurseries, or recreation through acquisition and easements. Maryland completed projects that protected 4,425 linear feet of nearshore habitat from erosion while providing critical habitat through the implementation of shoreline management techniques such as living shorelines.

Texas

The Texas Coastal Resources Program created an oyster shell recycling program, called the "Shell Bank", for the Texas Coastal Bend. This innovative oyster shell reclamation, storage, and recycling program creates a repository to collect and decontaminate shucked shells, identifies reef restoration sites, performs an economic analysis of the shell bank and educates the public. By putting shells back into the Bay, new substrate and habitat is created for larval recruitment and growth. Oyster reefs are vital to the health of ecosystems and economies as they provide habitat for other organisms and fish and help improve water quality. Oyster fisheries play a large part in the coastal economy of Texas with 6.1 million pounds harvested annually generating \$11 million in revenue. The project is a success, collecting approximately 70 tons of oysters to date.

The Texas General Land Office (GLO) established guidelines for the development of local Erosion Response Plans (ERPs) that can incorporate a building set-back line. The guidelines for ERPs include provisions for prohibition of building habitable structures seaward of the building set-back line, exemptions for certain construction seaward of the set-back line, stricter construction requirements for exempted construction, improvements to and protection of public beach access points and dunes from storm damage, and procedures for adoption of the plans. Development of ERPs by several local governments using CZMA funding is underway. This will contribute to:

- reductions in public expenditures due to erosion and storm damages, disaster response and recovery costs, loss of dune area habitats, and biodiversity;
- protection of critical dunes and dune vegetation that provide protection during storm events;
- preservation and enhancement of public access and use of beach; and
- prevention of the loss of human life.

Coastal and Estuarine Land Conservation Program

CSO requests Coastal and Estuarine Land Conservation Program (CELCP) not be terminated, as proposed in the President's budget request. Authorized by Congress in 2002, CELCP protects "those coastal and estuarine areas with significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational States to other uses." To date,

the Congress has appropriated nearly \$255 million for CELCP. This funding has allowed for the completion of more than 150 conservation projects, with more in progress. CELCP projects in 27 of the Nation's 35 coastal States have already helped preserve approximately 50,000 acres of the Nation's coastal assets. All Federal funding has been leveraged by at least an equal amount of State, local, and private investments, demonstrating the broad support for the program, the importance of coastal protection throughout the Nation, and the critical role of Federal funding plays in reaching the conservation goals of our coastal communities.

The preservation of coastal and estuarine areas is critical to both humans and the environment. These areas shield us from storms, protect us from the effects of sea-level rise, filter pollutants to maintain water quality, provide shelter, nesting and nursery grounds for fish and wildlife, protect rare and endangered species and provide access to beaches and waterfront areas. CELCP is the only program entirely dedicated to the conservation of these vital coastal areas.

The demand for CELCP funding far outstrips what has been available in recent years. In the last 3 years, NOAA, in partnership with the States, has identified over \$270 million of vetted and ranked projects. As demand for CELCP funding has grown, the funding has not kept pace. Adequate funding is needed to meet the demand of the increasingly high-quality projects developed by the States and submitted to NOAA. Unfortunately, budget constraints at NOAA have forced the agency to make a difficult choice not to fund its only land acquisition program. Efforts are underway to streamline NOAA's coastal stewardship programs to create program efficiencies and lower costs. Eliminating an important and successful coastal conservation tool before a consolidation plan is in place does not make sense. Therefore, we request that the subcommittee restore funding for CELCP until a consolidation plan can be developed and implemented.

Regional Ocean Partnerships

There is an ever-growing recognition that multistate, regional approaches are one of the most effective and efficient ways to address many of our ocean management challenges. These approaches are producing on-the-ground results that are benefiting both the economy and the environment.

Federal investment in Regional Ocean Partnerships (ROP) representing every coastal State in the continental United States and potentially emerging in the Pacific and Caribbean islands—will enhance economic development, grow employment in green technologies, foster sustainable use of our oceans, coasts and Great Lakes, and leverage State and nongovernmental investments. To meet our ocean and coastal challenges, Governors have voluntarily established ROPs and are working in collaboration with Federal agencies, tribes, local governments, and stakeholders. In the belief that multi-sector, multistate management decisions will result in an improved ocean environment and ocean-related economy, ROPs are working in a variety of manners and approaches to address similar challenges, enhance the ecological and economic health of the regions, and ultimately the Nation.

The States and territories with existing partnerships, and those under development, request \$10 million in grants for ROPs as a step toward the funding level needed. These grants will provide essential support for the development and implementation of action plans within each region. ROPs also request appropriation language stating that 10 percent of the total funding be divided equally to existing ROPs for operations support and the remaining funding broadly support the development and implementation of regional priorities as determined by the ROPs through competitive solicitations.

Funding for operations support will ensure that the ROPs become enduring institutions that can guide regional efforts over the long term. Remaining funds allocated through a competitive grants process will support projects that address the priorities identified in the regions. Grants to the Partnerships should be awarded and administered by NOAA. CSO and the Partnerships are in agreement that this funding; however, cannot be at the expense of the CZM program funding. The CZM grants to the States provide the infrastructure and support that is foundational to the work of the ROPs. Any decreases to CZM funding for the purposes of increasing that of the ROPs will only hamper the States' ability to implement the National Ocean Policy as well as address regional priorities. As partnerships mature and new ones form where needed, funding should increase to \$60 million as soon as possible in order to fully meet their needs.

National Estuarine Research Reserve System

The National Estuarine Research Reserve System partners with States and territories to ensure long-term education, stewardship, and research on estuarine habitats. Atlantic, Gulf, Pacific, Caribbean, and Great Lakes reserves advance knowl-

edge and stewardship of estuaries and serve as a scientific foundation for coastal management decisions. This unique site-based national program contributes to systemic research, education, and training on the Nation's estuaries.

These types of partnership programs account for only a small portion of the total NOAA Federal budget, but provide dramatic results in coastal communities. The funding for these programs is very cost effective, as these grants are matched by the States and are used to leverage significantly more private and local investment in our Nation's coastal zone. Maintaining funding for these programs that provide on-the-ground services to our local communities and citizens is well worth the investment.

CSO greatly appreciates the support the subcommittee has provided in the past. Its support has assisted these programs in working together to protect our coasts and sustain our local communities. We appreciate your taking our requests into consideration as you move forward in the fiscal year 2013 appropriations process.

PREPARED STATEMENT OF THE EARTH INSTITUTE, COLUMBIA UNIVERSITY

Madam Chair and members of the subcommittee, thank you for this opportunity to voice my appreciation for the support this subcommittee has steadfastly provided for basic science—particularly in the Earth and environmental sciences—at the National Science Foundation (NSF), the National Oceanic and Atmospheric Administration (NOAA), and the National Aeronautics and Space Administration (NASA). This subcommittee is responsible for at least 75 percent of the total Federal support for Earth and environmental sciences and the importance of that investment is both lifesaving and essential from an economic point-of-view, as I will describe in my testimony. Assuming I can make that case to you and your colleagues, I hope that even as you are confronted with extremely severe budget challenges, you will continue to place a high priority on these basic research activities in the fiscal year 2013 appropriations process.

My focus on basic sciences is not because I am a physical or natural scientist. I am a political scientist, a scholar of public management, and the director of two masters programs at Columbia University—a Masters of Public Administration in environmental science and policy, and a Master of Science in sustainability management. In both programs, students are required to take core courses in environmental science. Why do I require management and policy students to learn science? I do so because there is a fundamental need to understand basic environmental processes in order to effectively manage anything in an increasingly challenging world. Decisionmakers must have insight into the natural resources and inputs that sustain their organization or business—the energy, water, and raw materials needed for production. They must also understand the impact of their production on the natural environment. Ask BP if they think that is important knowledge for management to have. An education that includes basic science allows graduates of these programs to serve as managers and policymakers with the environmental and Earth science information that is increasingly necessary to evaluate complex information and make informed decisions.

When I was growing up in the 1960s, there were 3 billion people on the planet; today there are more than 7 billion. With a global population that is projected to reach 10 billion by 2050, the crucial question emerges—how do we extract our needs from the planet without destroying it? In an increasingly crowded planet, the scale of production of everything has grown, and with it we see an increased draw on the Earth's resources. If we do not develop an economic system less dependent on the one-time use of natural resources, then it is inevitable that energy, water, food, and all sorts of critical raw materials will become more and more expensive. The development of a sustainable, renewable resource-based economy has become a necessity. The species that really needs healthy ecosystems is not some endangered sea turtle or polar bear, but the one you and I belong to—the human species. Energy and climate are just some of the first places we see the strain on the global biosphere, but they won't be the last.

In order to maintain and improve our standard of living and those of the aspiring middle class in the developing world, we must create a high-throughput economy that manages our planet's resources and maintains the quality of our air, water, and land. In the United States and other wealthy nations, we expect our standards of living to continue to rise, enjoying advanced technologies, and reaping the benefits of an advanced economy. In order to do this, to grow the global economy in the long term, we need to manage the planet more effectively. Without a healthy and productive ecosystem, wealth is impossible; environmental protection is a prerequisite to wealth. The stress on our environment has become apparent to those

even in the wealthiest nations. The resources of the Earth are fixed and finite, and environmental and Earth system processes are complex and not yet completely or widely understood. Scientific research is required to continue to advance our knowledge of these systems so that we can ensure our ability to sustainably utilize them in the long run. We need to advance and invest in the science of Earth observation if we are to sustainably manage an economy capable of supporting the planet's population.

The fact is that we know far more about the functioning of our economy than about the environment. The Gross Domestic Product indicator has been around since the 1930s. There is still no such all-encompassing measure for environmental quality and planetary health—yet these may end up being key indicators of global well-being and the ability for individuals, organizations, and nations to prosper. Basic environmental science and Earth observations are the prerequisites for such an overall sustainability measure or metric. For these reasons, it is imperative that we expand the collective understanding of natural resources, Earth and environmental processes, and biological systems. We must continue to learn about the resources we have at our disposal, the processes that create and sustain them, and, perhaps most importantly, the short-term and long-term impacts we are inflicting on these resources and systems.

The support provided by NOAA's extramural competitive climate change research program, NSF's research programs—especially in the geosciences and biological sciences, and NASA's Earth science programs are critical keys to understanding the impacts we are inflicting on our natural resources and our complex environmental systems.

Physical constraints, resource costs, and environmental impacts have become routine inputs to decisionmaking across sectors and industries. Increasingly, environmental research is needed to drive the understanding behind critical public policy decisions. Basic and applied scientific research can uncover new policy options, lead to cost savings in unexpected ways, and can help make sense of sometimes conflicting data or information. Two examples from New York City illustrate the important role that basic science plays in fundamental policy decisions.

New York City's drinking water is among the best in the world, exceeding stringent Federal and State water quality standards. New Yorkers get their water from three upstate reservoir systems that the city owns and operates—the Catskill, Delaware, and the Croton watersheds. This extensive water system provides more than 1 billion gallons of water daily to more than 9 million New York City residents and residents in the surrounding counties.¹ The Catskill and Delaware watersheds, which together provide 90 percent of the water to the city, are so pristine that their water does not need to be filtered. This is a significant accomplishment; in fact, there are only four other major American cities that are not required to filter their drinking water:

- Boston;
- San Francisco;
- Seattle; and
- Portland.

To keep the sources of water clean, the city works hard to protect the watershed from activities that can threaten their water quality. New York City actively engages in land acquisition when available and feasible, acquiring more than 78,000 acres since 2002.² City ownership guarantees that crucial natural areas remain undeveloped, while eliminating the threat from more damaging uses. The city enforces an array of environmental regulations designed to protect water quality while also encouraging reasonable and responsible development in the watershed communities. New York City also invests in infrastructure—such as wastewater treatment facilities and septic systems—that shield the water supply, while working with its upstate partners to ensure comprehensive land-use best practices that curb pollution at the water's source. While these efforts take significant investments of time and money, the alternative to maintaining these watersheds is far more costly. If the water quality deteriorated, the city would be forced to build a filtration plant that could cost as much as \$10 billion to construct, which would mean costs of roughly \$1 billion a year to pay the debt service and operate the plant. This would also cause a water rate increase of at least 30 percent to New Yorkers.¹

Most of New York City's water supply is protected and filtered by the natural processes of upstate ecosystems. To environmental economists, nature's work that protects our water is an "environmental service." Because the price of a filtration plant is known, we can estimate the monetary value of the services provided to filter

¹ "PlaNYC: 2030". The City of New York. Apr 2007. Web. 3 Mar 2012. Pg 78.

² "PlaNYC: 2030". The City of New York. Apr 2007. Web. 3 Mar 2012. Pg 81.

our water. This comes to \$1 billion per year minus the \$100 million or so we spend each year to protect the upstate ecosystems. This is \$900 million a year of found money that we will lose if we don't protect these fragile ecosystems. It's a graphic illustration of the point that what is good for the environment will often be good for our bank account. However, this is only possible with a strong knowledge of these ecosystem services—we cannot assume nature is doing something and put a value on that service, if our fundamental understanding of the environmental processes involved is flawed or incomplete. This is where basic and applied science research is key—providing the foundation for critical public policy decisions, often involving substantial sums of public dollars. We can see that science is one of many critical inputs that managers and leaders need at their disposal to process complex problems and arrive at the best solution.

I will use my hometown, New York City, to demonstrate once more the influence that informed science can have on public policy problems and the bottom line. The problem of combined sewer overflow remains one of the most difficult water-quality issues facing New York City. Combined sewer systems are typical of cities with old infrastructure, where the sewage from your home is combined with sewage from street sewers before it is piped to the local sewage treatment plant. The problem is that if a large amount of rain suddenly sends a high volume of water into street sewers, it can overwhelm treatment plants and push raw sewage into local waterways before it is treated.

The traditional approach to dealing with the combined sewer overflow problem is to build tanks and other facilities to hold storm water during storms and then release it into the sewers once the storm has ended. In September 2010, New York City released its landmark Green Infrastructure Plan, which would make use of vegetation, porous pavements and porous streets, green and blue roofs, and even rain barrels to augment traditional investment in “gray infrastructure”. These “green” low-cost techniques reduce the impact of storms on the city's water treatment plants by absorbing or catching water before it can enter the sewer system. Green infrastructure can quickly reduce the flow of wastewater to treatment plants since it takes much less time to plant greenery or put out rain barrels than to site, design, build, and operate a traditional holding tank.

The goal of New York's innovative green infrastructure plan is to reduce sewage overflows into NYC waterways by 40 percent by 2030. The city's plan estimates costs that are \$1.5 billion less than the traditional “gray” strategy. Not only is green infrastructure cheaper than traditional infrastructure (and just as effective), but these types of projects provide multiple co-benefits for the city including cleaner air, reduced urban heat island effect, improved energy efficiency, and enhanced quality of life through increased access to green space.

Recently the State and city signed a draft agreement allowing the city to begin implementing its green infrastructure approach. The agreement also included a provision to defer making a decision to construct two combined sewer overflow tunnels until 2017. The rationale behind the postponement is that in 5 years we will know much more about the effectiveness of the green techniques. These tunnels are estimated to cost approximately \$1 billion each, and if we could demonstrate that an ecosystems services approach could save most of these funds, it would be an exciting and important demonstration of the principles of green infrastructure—and the importance of environmental science on policymaking.

Again, we see the importance of utilizing environmental science and research in critical decisionmaking that impacts significant populations of people. A clear, comprehensive understanding of hydrological, biological, and geochemical processes fuels the decisions to opt for “green” projects versus “gray” projects. Scientific research is not made for the sake of knowledge itself. Important environmental discovery and knowledge form the necessary building blocks to important policies. Neither of these innovative cost-saving public programs would be possible without a solid understanding of science. If we do not make the investment in the basic scientific research needed to make these complex decisions regarding the planet's finite resources and sensitive services, a reduction in the planet's ability to produce goods and services is only a matter of time. We need to dramatically increase funding for basic and applied science and focus attention on research and development in Earth observation, energy, food, water, and other key areas.

One of the great strengths of this country is our amazing research universities. In the post-World War II era, the United States established an effective partnership between Government-funded basic research and private sector application of fundamental research in applied technologies, including computers, cell phones, the Internet, and of course a host of breakthroughs in medicine and medical technology. Much of the economic growth of the past century and a half has been the direct result of this type of technological development. Government is especially crucial in

funding basic science that is too far from products and profits to generate private research and development investment. Government is also needed to help bridge the sometimes wide gap between basic and applied research.

Support for basic environmental science research should not be seen as a partisan or political issue. It is about the discovery of fundamental knowledge that has allowed us to improve our standard of living and holds the promise of a sustainable planet, free from extreme poverty. Support for basic scientific and engineering research and education—particularly the university-based research that the agencies under the jurisdiction of this subcommittee support—is a fundamental role of Government similar to national security, emergency response, infrastructure, and criminal justice. Reducing this funding is a threat to our long-term economic growth.

Thank you for this opportunity to appear before the subcommittee. I would be happy to answer any questions the members of the subcommittee may have.

PREPARED STATEMENT OF DAVID ENGELS AND LENI ENGELS, RN

We are writing to you because we are very upset by the Department of Justice (DOJ) trampling on the civil rights of some severely disabled individuals. For the last several years the DOJ has adopted an ideological agenda that assumes “one size fits all” and that all disabled people, regardless of their physical or mental disabilities, should be living “in the community.” DOJ has been intimidating and suing State governments, causing them to accept agreements which they would otherwise not accept. We are referring to both the “settlements” recently accepted by Georgia and Virginia. This is a very disturbing trend. The *Olmstead* law does not direct States to close State centers, but rather it directs States to provide for the least restrictive setting—which may be, in fact, an Intermediate Care Facility for the Mentally Retarded (ICF/MR) or similar care setting. Although the actions of the DOJ are insulting to parents and guardians who have made careful, albeit difficult decisions, looking out for the welfare of their children, this is not their only violation. Their actions blatantly disregard both the spirit and the letter of the *Olmstead* decision. The law clearly states:

“Federal Medicaid policy supports an individual’s right to choose where they receive Medicaid services for which they are eligible. For example, States are required by Federal law to offer individuals who are eligible for Medicaid home and community based waiver services the choice between community-based care under the waiver program or institutional services.

“Individuals with developmental disabilities and their families are the primary decisionmakers regarding the services and support such individuals and their families receive. Including regarding choosing where the individuals live from available options, and play decisionmaking roles in policies and programs that affect the lives of such individuals and their families.”—Developmental Disabilities Assistance and Bill of Rights Act, 423 U.S.C. 2001(c)(3) NOTE: the DD Act is the Federal authorizing statute for the Advocacy Center.

How can the DOJ ignore this integral part of the law?

On February 10, 2012, at a White House meeting with ARC, Attorney General Tom Perez stated, “*Olmstead* . . . is about people who want to live in the community and who can live in the community with the appropriate supports.” But my concern is for those who don’t want to live in the community, and those who are forced by DOJ actions to leave their safe homes—those who can’t live safely in the community. At the same meeting, Mr. Perez also said the recent settlement agreements between the DOJ and the States of Virginia and Georgia will “enable individuals to live, work and participate fully in community life.” Really? Can he explain how a 33-year-old individual, with the physical and cognitive function of an infant, will be able to “participate” in community life? By dismantling ICFs, and placing some higher-functioning individuals with developmental disabilities (DD) into the community, at the expense of those who can’t live there, Mr. Perez is effectively throwing the baby out with the bath water. In real life, he’s placing them in jeopardy. Isn’t DOJ’s Civil Rights Division charged with protecting everyone’s civil rights—not just those who are willing and able to “participate fully in community life”?

Therefore, we are writing to you with an urgent request; that you ensure that no Federal funds be used, to engage in any agenda, which dismantles and/or eliminates the option of intermediate care facilities (ICFs/MR/DD) for those individuals with the most severe/profound levels of disability. They are entitled to this option as outlined in the statutes listed above. I note that there is a request for an additional \$5.1 million for 25 attorneys for the Civil Rights Division which includes Civil Rights of Institutionalized Persons Act enforcement. Unless DOJ is going reverse

course and actually uphold the *Olmstead* decision, and abide by all the statutes therein—we strongly urge you to deny the request for additional funding.

ADDITIONAL SPECIFIC REQUESTS

Subcommittee on Commerce, Justice, Science and Related Agencies—Re: Department of Justice/Civil Rights Division Policies

We object to the Civil Rights Division’s ADA/*Olmstead* Enforcement policies, the effect of which is to eliminate intermediate care programs/licensed congregate care facilities for persons with severe/profound cognitive-developmental disabilities.

We recommend to the subcommittee that it place restrictions on the Civil Rights Division’s fiscal year 2013 budget, so that funds may not be used to undermine and/or eliminate licensed facilities for persons with cognitive-developmental disabilities.

Subcommittee on Labor, Health and Human Services, Education, and Related Agencies—Re: DHHS/Administration on Children and Families/Administration on Developmental Disabilities policies

We object to the activities of the Administration on Developmental Disabilities (“DD Act” programs) policies, the effect of which is to eliminate intermediate care programs/licensed congregate care facilities for persons with severe/profound cognitive-developmental disabilities.

We recommend to the subcommittee that it place restrictions on the Administration on Developmental Disabilities’ fiscal year 2013 budget, so that program funds may not be used to undermine and/or eliminate licensed facilities for persons with cognitive-developmental disabilities.

Thank you.

PREPARED STATEMENT OF FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY

The Federation of American Societies for Experimental Biology (FASEB) respectfully requests an appropriation of at least \$7.3 billion for the National Science Foundation (NSF) in fiscal year 2013. This funding level matches the recommendation made in the President’s fiscal year 2013 budget request. As you know, NSF funding in recent years has failed to reach the levels authorized in the America COMPETES Acts of 2007 and 2010. FASEB’s broader goal is to support sustainable growth and a return to a funding trajectory reflective of the COMPETES reauthorization.

As a federation of 26 scientific societies, FASEB represents more than 100,000 life scientists and engineers, making it the largest coalition of biomedical research associations in the United States. FASEB’s mission is to advance health and welfare by promoting progress and education in biological and biomedical sciences through service to its member societies and collaborative advocacy. FASEB enhances the ability of scientists and engineers to improve—through their research—the health, well-being, and productivity of all people.

With just 4 percent of the Federal research and development (R&D) budget, NSF sponsors 40 percent of federally funded basic academic research in the physical sciences and serves as the primary Federal funding source for research in disciplines such as computer science, nonhealth-related biology, and the social sciences. NSF also plays a significant role in advancing biomedical research; 42 Nobel Prizes have been awarded to NSF-funded scientists for contributions in physiology or medicine.

At a time when the U.S. faces many challenges, scientific and technological advances are the key to keeping our Nation globally competitive and protecting our standard of living. The broad portfolio of fundamental research supported by NSF expands the frontiers of knowledge, fuels future innovation, and creates a well-developed research infrastructure capable of supporting paradigm-shifting research projects. NSF grants, awarded to projects of the highest quality and greatest significance in all 50 States, are selected using a rigorous merit-review process that evaluates proposals on both scientific and societal value. For example, one recent NSF research project utilized mathematics and computer modeling to understand structural characteristics of stents used to treat coronary artery disease. The results of this research will allow manufacturers to optimize stent design and help doctors determine the best kind of stent for each patient and medical procedure. Another team of NSF-funded scientists is studying the unique properties of sundew plants to develop new materials with potential medical applications. Adhesive fibers, like those secreted by the plant, could one day be incorporated into bandages that accelerate tissue repair or applied to artificial hip and knee replacements to stimulate compatibility with human tissue. NSF researchers are also exploring scientific questions

that reveal the nature of our universe. Using new data collection capabilities not available a few years ago, astronomers recently discovered the most massive black holes ever observed in outer space.

NSF is also committed to achieving excellence in science, technology, engineering, and math education at all levels. The agency supports a wide variety of initiatives aimed at preparing science teachers, developing innovative curricula, and engaging students in the process of scientific inquiry. One of many NSF efforts to prepare future scientists and engineers, the Graduate Research Fellowship Program (GRFP) annually awards approximately 2,000 3-year fellowships to outstanding graduate students pursuing advanced degrees in science, technology, engineering, or mathematics. NSF graduate research fellows are making important scientific contributions, and past GRFP award recipients have gone on to become leading scientists and Nobel Prize winners. Through its education and training initiatives, NSF ensures the development of a workforce well-prepared to advance knowledge and achieve new breakthroughs in science and engineering.

NSF-funded research has produced revolutionary discoveries and innovations through its broad-based, long-term investment in R&D. These are the types of investments that no individual or private business could afford to undertake. If the public did not support it, it would not be done. The recently released National Science Board Science and Engineering Indicators 2012 report indicates that while growth of United States R&D expenditures has slowed in recent years, China's R&D expenditures have risen sharply, increasing by 28 percent in 2009. Failure to build on prior investments in NSF would slow the pace of discovery, sacrifice our position as the global leader in innovation, and discourage young scientists and engineers. Strong and sustained NSF appropriations enable the groundbreaking research and training critical to the future success and prosperity of the United States.

Thank you for the opportunity to offer FASEB's support for NSF.

FASEB is composed of 26 societies with more than 100,000 members, making it the largest coalition of biomedical research associations in the United States. Celebrating 100 Years of Advancing the Life Sciences in 2012, FASEB is rededicating its efforts to advance health and well-being by promoting progress and education in biological and biomedical sciences through service to our member societies and collaborative advocacy.

PREPARED STATEMENT OF THE FAMILIES AND FRIENDS OF CARE FACILITY RESIDENTS

Chairman Mikulski and members of the subcommittee: Thank you for the opportunity to testify regarding appropriations for the Department of Justice (DOJ)/Civil Rights Division (CRD). DOJ is requesting additional personnel of 50 positions and resources of \$5.1 million to strengthen civil rights enforcement efforts that the Attorney General has identified as part of his Vulnerable People Priority Goal. My testimony is limited to DOJ's activities under Civil Rights of Institutionalized Persons Act (CRIPA) and the Americans with Disabilities Act (ADA), which are included in this program area.

I represent the Arkansas statewide parent-guardian association, Families and Friends of Care Facility Residents (FF/CFR), a 501(c)(3) organization. I am a volunteer advocate. My interest in the appropriations for the DOJ/CRD is that of mother and co-guardian of an adult son, aged 43, whose severe brain injuries occurred at birth. CRD's programs called "Enforcement of the Integration Mandate of the Americans with Disabilities Act (ADA) and *Olmstead v. L.C.*" are aggressive legal actions against States which operate licensed, Medicaid-certified congregate care programs for individuals who have been adjudicated incompetent and whose continuous care is beyond their families' capacities. CRD's mission is to eliminate the option of State-operated congregate care for individuals with disabilities in the misguided notion that CRD knows what is best for my son and other individuals with severe and profound disabilities rather than their legal guardians who have made the residential decisions for their family members.

Our son, a middle-aged man, has a medical diagnosis of profound mental retardation and autism. John functions on the level of a toddler. He is basically nonverbal, with occasional echolalia (he may repeat in short words or phrases what another says directly to him) and exhibits pica (an intense desire to consume inedibles). He has a toddler's sense of danger (without close supervision, he might walk into a busy street; and he would not recognize a toxic cleaning product as something harmful to ingest, for example).

John can be frightening to an untrained person. A large mobile man when he is frustrated or experiences disappointment or discomfort, he might come too close to others, and in a full-blown meltdown, he might howl, slap his face, and chew on

his right wrist. At such times, he is vulnerable to over-reaction by untrained, unsupported staff. Our son's care is beyond our family's capacities. All of his life, John and others similarly situated will rely on the humanity of others for health and safety. In particular, they will require residential programs with high standards when there are no living or active family members involved in their lives. For many years our son's safe home has been a State-operated congregate-care, Medicaid-certified intermediate care facility. Through costly litigation and arbitration, DOJ/CRD is systematically dismantling the residential living facilities for these fragile persons, removing the most defenseless among us from their protected environment without respect for the wishes of guardians and with no clear underlying, peer-reviewed rationale. CRD's actions have caused and continue to cause enormous stress and anxiety for families and guardians.

Federal tax dollars should not be spent in undermining and dismantling a system of care that is absolutely essential to many persons with disabilities. What is often overlooked, particularly by those in authority who are far away from the daily responsibilities of care and who are not responsible for providing the close care required, is that the population with disabilities involved in CRD's legal actions is extremely difficult to care for and to support, wherever they may live. It is our position (including those like my family who are parents and families of the critically disabled individuals at risk) that congregate care facilities, adequately funded, offer the most suitable settings and programs for a particular group of those suffering from some of the most severe forms of cognitive—developmental disabilities.

DEPARTMENT OF JUSTICE/CIVIL RIGHTS CASES IN ARKANSAS AND SIMILAR CASES IN THE UNITED STATES

DOJ policies, under the mask of "civil rights", were played out in a Federal lawsuit in Arkansas (*United States of America v. State of Arkansas/Conway Human Development Center*, Eastern District of Arkansas, Case No. 4:09-cf-00033-JLH (2011)). DOJ began investigating the center in 2003 and spent millions of dollars with about 15 attorneys committed to the case (at trial) after an 8-year investigation, and a 6-week Federal trial challenging our State over one of its intermediate care facilities, which during the long years of investigation was at all times in compliance with its Federal Medicaid certification regulations.

Arkansas defended its developmental center, and to our great relief, the substantive DOJ claims were denied and the case was dismissed (June 2011).

As the parties prepared for trial, DOJ filed a second law suit against Arkansas, naming all of the State's licensed facilities, including my son's home, alleging ADA violations. DOJ's ADA case against all of the centers was dismissed, and the Federal trial by DOJ against the Conway Human Development Center proceeded in early September 2010. I was a spectator and observer through most of the 6-week trial in Little Rock, Arkansas. Not one family from the more than 400 Conway center residents supported DOJ's claims that their family members' civil rights were violated; not one medical provider or hospital representative familiar with the center's residents and their complex medical needs testified to support DOJ's claims of poor care.

The Federal Court dismissed the Justice Department's lawsuit against the Arkansas center (June 8, 2011). In an 85-page decision, the Court began its findings as follows:

"Most lawsuits are brought by persons who believe their rights have been violated. Not this one . . . All or nearly all of those residents have parents or guardians who have the power to assert the legal rights of their children or wards. Those parents and guardians, so far as the record shows, oppose the claims of the United States. Thus the United States [Department of Justice] is in the odd position of asserting that certain persons' rights have been and are being violated while those persons—through their parents and guardians disagree." See Case decision, 1st para., p. 1.

In the Arkansas case, DOJ was assessed \$150,585.01 in court costs to be paid to the State, but DOJ was not required to pay the more than \$4.3 million in attorney's fees and litigation costs Arkansas spent for defending the center. These fees were not reimbursed and they came from several places including the sale of timber and mineral rights on board-owned properties and donations and bequests accumulated in more than 50 years to the State-operated centers for the purpose of enhancing services for their vulnerable residents.

States across the Nation have been confronted with DOJ's misguided ADA/*Olmstead* Enforcement Policies. The latest example is in the State of Virginia. Simultaneously, with no opportunity for public review, DOJ filed both a complaint and

a settlement agreement in January of this year. We know from hard experiences in other States, that DOJ objectives to close State-operated centers are usually not identified clearly in the documentation of an investigation of a case, but the intentions become clearer as implementation of the settlement agreements is carried out. A settlement in Texas, for example, requires the State's centers to undergo additional reviews by DOJ approved court monitors. None of the Texas centers is likely to achieve the goals set by the monitors. In a recent editorial, a Texas newspaper commented that based on its first-hand knowledge of a center, the complex population it serves and the staff, "the demands are not reachable." (Lufkin Daily News, 2/26/2012).

In a settlement agreement with the State of Georgia, which was entered contemporaneously with filing of the lawsuit and without public review, all persons with developmental disabilities in the developmental centers are required to move from their licensed facilities. The Assistant Attorney General for CRD described the Georgia Settlement Agreement as a "template for our enforcement efforts across the country." In a teleconference, he described his role in the settlement which included going directly to the Governor of Georgia to press for an agreement rather than costly litigation.

CONCLUSION

It is not in the public interest for a federally funded entity through power of its office and out of the public view to coerce a State to cease operating programs which have historically proven successful in assuring the health and safety of persons with lifelong, severe cognitive disabilities. It is deeply offensive to me, my family and many others that our Federal Government through the DOJ is empowered to intimidate State authorities into unfair settlement agreements resulting in closures of our children's safe homes. It is especially egregious that this activity continues when DOJ's legal claims have been found so weak in Federal court and the outcomes are so dangerous to the health and safety of the most vulnerable among us.

DOJ does not reference the Arkansas case on its Web site; however, it does have a document entitled "Statement of the Department of Justice on Enforcement of the Integration Mandate of Title II of the Americans with Disabilities Act and *Olmstead v. L.C.*" This document omits the Federal laws which recognize that individuals with developmental disabilities and their families are the primary decisionmakers in placement choices; it omits the Medicaid rule which provides that eligible persons may choose between home and community based care and institutional care. The DOJ statement presents an incomplete interpretation of the *Olmstead* decision and ignores critical parts, for example: In the *Olmstead* majority opinion, Justice Ginsberg wrote that "[w]e recognize, as well, the States' need to maintain a range of facilities for the care and treatment of persons with diverse mental disabilities," 527 U.S. 597. The Court further held that "[w]e emphasize that nothing in the ADA or its implementing regulations condones termination of institutional settings for persons unable to handle or benefit from community settings." 527 U.S. 601.

Justice Kennedy, joined by Justice Breyer, wrote in his concurring opinion, joining the majority of four: "it would be unreasonable, it would be a tragic event, then, were the Americans with Disabilities Act of 1990 (ADA) to be interpreted so that States had some incentive, for fear of litigation, to drive those in need of medical care and treatment out of appropriate care into settings with too little assistance and supervision." 527 U.S. 610. Justice Kennedy's prognostic fear is a present day reality.

DOJ should re-examine its programs under *Olmstead*, which the Department calls an "integration mandate," and answer for the very serious consequences of its actions. Most important, how many former residents of congregate care facilities have died from preventable causes since being displaced from their ICF/MR (Intermediate Care Facilities for persons with Mental Retardation) homes? What are the actual facts on quality of care and comparative costs?

REQUEST

The comprehensive and devastating reach of the Civil Rights Division agenda on the most vulnerable among us requires active, vigilant congressional oversight. We respectfully request this subcommittee's review and action by:

- halting the misguided mission of the Civil Rights Division of the Department of Justice, as described above;
- discontinuing to fund the de-institutionalization programs of the Civil Rights Division of the Department of Justice; and

—placing restrictions on the Civil Rights Division’s programs, limiting its funds to bring actions that drive States out of their roles in providing care for our most severely impaired developmentally disabled citizens, all under the mask of “civil rights.”

PREPARED STATEMENT OF THE IACP/DUPONT KEVLAR SURVIVORS’ CLUB®

Chairwoman Mikulski and Ranking Member Hutchison, members of the subcommittee, I genuinely appreciate this opportunity to submit testimony in support of a program key to law enforcement officer safety: the Bulletproof Vest Partnership Act (BVPA). I thank the subcommittee for supporting BVPA funding in the past and ask that the program be funded at or more than the level recommended in the President’s fiscal year 2013 budget, or \$24 million. Program demand continues to be very high: the 5-year average for combined small and large agency requests for BVPA funds is \$114 million, compared to average annual funds of \$28 million allocated the BVPA (according to the Bureau of Justice Assistance [BJA]).

By way of brief background, I served as a police officer for 35 years, 20 of which were as chief of police. Following that, I have documented the benefits of wearing body armor for thousands of officers across the country over the last decade through the IACP/DuPont Kevlar Survivors’ Club® as created by the International Association of Chiefs of Police (IACP) and DuPont in 1987. Key functions of the IACP/DuPont partnership are encouraging law enforcement officers to wear personal body armor and celebrating the lives of officers who, as the result of wearing ballistic protection, were protected from being disabled or killed. The data collected from police survivors is shared with the noncommercial research community for the exclusive purpose of improving the next generation of body armor.

I am able to provide reported preliminary and verified saves for every State upon request. For the purposes of this testimony, the saves for Maryland are 10 and for Texas, 60. I call to your attention that we are unable to capture all saves. Agencies and officers for a variety of reasons often prefer not to submit information about an incident.

Background and Need.—Law enforcement is a field that carries inherent risks, with the past 2 years being especially lethal years for law enforcement officers. Numbers from the Officer Down Memorial Page (www.odmp.org) note that 164 line-of-duty deaths were reported in 2011 and 162 line-of-duty deaths in 2010. Although we are at the beginning of 2012, line-of-duty deaths are already at 22—with the first being that of a female officer—United States Park Ranger Margaret Anderson.

Considering only police line-of-duty deaths resulting from felonious attacks, the numbers are stunning. The table below reflects final Federal Bureau of Investigation Law Enforcement Officers Killed and Assaulted (FBI LEOKA) data for the years 2009 and 2010. Although the data for 2011 is incomplete as reported by FBI LEOKA on December 27, 2011,¹ the number of officers feloniously killed increased 35.4 percent from 2009 to 2011. This begs the question, if the reports of homicide in the country are generally decreasing, why are police homicides up?

FBI LEOKA REPORTS OF OFFICERS FELONIOUSLY KILLED

Type of weapon	2009	2010	2011
Number of victim officers	48	56	65
Type of firearms used to kill law enforcement officers:			
Handgun	28	38	.....
Rifle	15	15	.....
Shotgun	2	2	.....
Type of firearm not reported .....	.....	.....	.....
Total officers feloniously killed by firearm	45	55	56
Weapons other than firearm used to kill law enforcement officers:			
Knife or other cutting instrument .....	.....	.....	1
Bomb .....	.....	.....	.....
Blunt instrument .....	.....	.....	.....
Personal weapons (hands and feet) .....	.....	.....	2

¹FBI LEOKA preliminary report felonious deaths as of December 27, 2011; final 2011 Law Enforcement Officers Killed and Assaulted report will be published by the FBI in 2012; visit FBI LEOKA data at <http://www.fbi.gov/about-us/cjis/ucr/leoka/leoka-2010>.

FBI LEOKA REPORTS OF OFFICERS FELONIOUSLY KILLED—Continued

Type of weapon	2009	2010	2011
Vehicle	3	1	6
Other .....	.....	.....	.....

The American police community is facing incredible challenges, not the least being officer safety. Police officers are encountering criminals armed with high-powered weapons including fully automatic rifles. Criminals are routinely wearing body armor while engaged in violent acts. Even so, men and women of American law enforcement are the first responders charged to prevent, interrupt, mitigate, and recover from a criminal act, be it a minor crime in progress or the action of a terrorist. It is vital to ensure that they are provided the tools and equipment to carry out their duties safely. This includes adequate comfort and coverage with respect to body armor.

Body armor continues to serve as an effective piece of equipment to save officers from disabilities and death—with FBI data showing relative risk of fatality for officers who did not wear body armor at 14 times greater than those who did.² Documented saves include more than 3,100 officers over the past 30 years³—a number that is likely far higher considering that many incidents go unreported in the regular course of law enforcement work. However, BJS estimates that only 67 percent of departments require the officers to wear protective armor at all times.⁴

Body armor protects scores of officers from injuries—both ballistic and nonballistic—every year. However, although the National Institute of Justice (NIJ) has worked to ensure certain levels of protection for ballistic vests, the policy insufficiently addresses issues of fit, measurement, and maintenance—which has produced wide variation in the treatment of these issues by manufacturers that has led to a decreased level of safety for officers using body armor. For example, BJA policy fails to set standards for those taking measurements for fit and coverage, leaving room for great levels of discretion and error. Ideally, fit would be verified at time of delivery, at a specific period of time after delivery to provide for adjustments required after a break-in period, and annually thereafter until the armor is removed from service.

The FBI reports that from 1996 to 2005, 132 officers were killed while wearing body armor from ballistic penetration of areas not covered by body armor. Of those killed, 26 percent were wounded between side vest panels, 35 percent around the armholes or shoulder, 25 percent above the vest, and 14 percent below the vest. The actual numbers are much greater as this information is limited to felonious deaths and does not include assaults where the officer survived. These numbers highlight the importance of ensuring good fit and measurement to provide officers with equipment that provides maximum safety.

Special Issue Concerning Female Body Armor.—Law enforcement is no longer a men-only occupation. Numbers show that for the past few decades, the number of women in law enforcement has consistently increased—for all levels of law enforcement:⁵

- By 2008, about 100,000 women served as Federal, State, or local law enforcement officers.
- The number of women in local enforcement grew from 7.6 percent in 1987 to 12 percent by 2007.
- Among local law enforcement agencies, women represented more than double the percent of sworn personnel in large agencies than compared to small agencies.
- In 2007, women made up 18 percent of sworn officers in 12 of the 13 largest local police departments.

Regrettably, when it comes to body armor for women, usage of body armor specifically designed to fit the female torso is limited. Much of the armor currently offered is designed for male officers and does not take into account the anatomical differences between male and female officers. In one survey, female officers complained that the poor fit, especially in the bust, made it “hard to breathe,” and another

² FBI LEOKA data.

³ International Association of Chiefs of Police (IACP)/DuPont Survivors' Club®.

⁴ Bureau of Justice Statistics Web site, based on Law Enforcement Management and Administrative Statistics survey, and the Census of State and Local Law Enforcement Agencies: <http://bjs.ojp.usdoj.gov/index.cfm?ty=tp&tid=71>.

⁵ Bureau of Justice Statistics Crime Data Brief: Women in Law Enforcement, 1987–2007: <http://www.bjs.gov/content/pub/pdf/wle8708.pdf>.

noted that the tight fit made her feel “squashed”—hardly top conditions under which female officers should operate. A survey conducted by the Institute for Women in Trades, Technology, and Science found that 33 percent of female officers reported fit problems, compared to 6 percent of their male counterparts. Even so, many female officers shun the stigma surrounding perceived “special treatment” by superiors and, therefore, fail to request equipment made to suit them even though it may only run \$100–\$150 more than male armor. Many end up requesting body armor designed for a male body, to keep up with their male peers, but find it impractical to use. Clearly, the level of education and awareness concerning this type of protective equipment must be elevated.

BVPA.—Some of these issues related to fit and coverage were studied by the Government Accountability Office (GAO), which released a report (GAO12–353) on February 15, 2012, entitled, “Law Enforcement Body Armor: DOJ Could Enhance Grant Management Controls and Better Ensure Consistency in Grant Program Requirements”. According to the report’s highlights, here are key findings and recommendations:

“The Department of Justice (DOJ) has a number of initiatives to support body armor use by State and local law enforcement, including funding, research, standards development, and testing programs. Two Bureau of Justice Assistance (BJA) grant programs provide funding to State and local law enforcement to facilitate their body armor purchases. The Bulletproof Vest Partnership (BVP) program offers 2-year grants on a reimbursable basis . . .”

“DOJ designed several internal controls to manage and coordinate BJA’s and NIJ’s body armor activities, but could take steps to strengthen them, consistent with standards for internal control. For example, the BVP program has not deobligated about \$27 million in undisbursed funds from grant awards whose terms have ended. To strengthen fund management, DOJ could deobligate these funds for grants that have closed and, for example, apply the amounts to new awards or reduce requests for future budgets. Also, unlike the BVP program, the JAG program does not require that the body armor purchased be NIJ compliant or that officers be mandated to wear the armor purchased. To promote officer safety and harmonize the BVP and JAG programs, DOJ could establish consistent body armor requirements . . .”

“GAO recommends that among other actions, DOJ deobligate undisbursed funds from grants in the BVP program that have closed, establish consistent requirements within its body armor grant programs, and track grantees’ intended stab-resistant vest purchases. DOJ generally agreed with the recommendations.”

The recommendation by GAO to deobligate unused funds warrants judicious consideration. It is my understanding that the unused funds, referenced in the GAO report, were not drawn down by the requesting jurisdictions during the period of 2004 through 2009. As I understand it, beginning with 2008 BPVA awards, BJA reduced the amount of new awards equal to unused/expired funds in a jurisdiction’s account and decreased the eligibility period for use of funds from 4 years to 2. Deobligating funds as recommended by GAO could have a detrimental effect on jurisdictions requiring more time to spend down the remainder of their grants.

Thus, in addition to funding the BVPA at a level equal to or higher than the President’s fiscal year 2013 request of \$24 million, I urge the subcommittee to not approve deobligation of BVPA funds as recommended by GAO and allow more time for grantees to use those monies to purchase body armor for officers. Hopefully this will also be body armor that fits well, covers areas adequately, and is comfortable enough to allow the officer to properly do his or her job.

PREPARED STATEMENT OF THE INSTITUTE OF MAKERS OF EXPLOSIVES

INTEREST OF THE INSTITUTE OF MAKERS OF EXPLOSIVES

Interest of the Institute of Makers of Explosives (IME) is a nonprofit association founded in 1913 to provide accurate information and comprehensive recommendations concerning the safety and security of commercial explosive materials. IME represents U.S. manufacturers, distributors, and motor carriers of commercial explosive materials and oxidizers as well as other companies that provide related services. The majority of IME members are “small businesses” as determined by the Small Business Administration.

Millions of metric tons of high explosives, blasting agents, and oxidizers are consumed annually in the United States. These materials are essential to the U.S. economy. Energy production, construction, and other specialized applications begin with the use of commercial explosives. IME member companies produce 99 percent

of these commodities. These products are used in every State and are distributed worldwide. The ability to manufacture, distribute, and use these products safely and securely is critical to this industry.

Commercial explosives are highly regulated by a myriad of Federal and State agencies. Alcohol, Tobacco, Firearms and Explosives (ATF) plays a predominant role in assuring that explosives are identified, tracked, purchased, and stored only by authorized persons. We have carefully reviewed the administration's fiscal year 2013 budget request for ATF and have the following comments about its potential impact on the commercial explosives industry.

ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES EXPLOSIVES REGULATORY PROGRAM
BUDGET REQUEST

The administration's fiscal year 2012 budget request proposes to decrease resources devoted to ATF's regulation and oversight of explosives industries by 24 full-time equivalent (FTE), a 7-percent reduction, from 335 FTE to 311 FTE, for a savings of \$940,000.¹ This FTE reduction represents nearly one-half of the staffing reduction the Bureau's Arson and Explosives Program is being asked to absorb.

We understand the current urgency to address the Federal budget deficit. We understand the shared sacrifice that all segments of the Government are asked to make to help the economy recover by spurring job growth and investment. Yet, budgetary cuts to the bureaucracy should not cut essential services. By law, ATF must inspect explosives licensees and permittees at least once every 3 years and conduct background checks of so-called "employee possessors" of explosives and "responsible persons." During the last full fiscal year, ATF conducted more than 4,000 such compliance inspections and identified 1,392 public safety violations.² In addition to this workload, ATF must process applications for new explosives licenses and permits as well as those submitted for renewal of existing licenses and permits. More than 2,700 such applications were processed during the last full fiscal year.² ATF must also conduct inspections of all new applicants. More than 56,000 background checks were completed for employee possessors and more than 9,000 for responsible persons.² These are significant workload indicators.

ATF recognizes that its ability to perform its statutory responsibilities will be negatively impacted by these resource cuts. ATF estimates that, in fiscal year 2010, it met its statutory responsibilities 95.8 percent of the time. In fiscal year 2012, it estimates that this performance rate will fall to 88 percent. And, with the resource cuts anticipated in fiscal year 2013, this competency rate will fall to 85 percent. The Bureau's falling productivity cannot help but have adverse impacts on our industry. Without approved licenses and permits from ATF, our industry cannot conduct business. Delays in servicing the needs of our industry may lead to disruptions in other segments of the economy that are dependent on the products and materials we provide.

At the same time, duplication between Government programs wastes resources. Last year, the Government Accountability Office (GAO) highlighted areas of duplication between the ATF and the Federal Bureau of Investigation (FBI) that relate to explosives incidents.³ As early as 2004, duplication and overlap were identified in the areas of investigations, training, information sharing, and use of databases and laboratory forensic analysis. While ATF's budget request provides updates of plans for consolidating and eliminating these redundancies, we continue to watch for other potential areas of overlap. In describing its role as the sole repository of data on explosives incidents, ATF states that "8 billion pounds of ammonium nitrate are produced, of which half is used for explosives."⁴ In fact, the percentage used by the explosives industry has been rising and currently stands at 70 percent. As a regulatory matter, the security of ammonium nitrate (AN), along with other explosives precursors, has been delegated to the Department of Homeland Security (DHS). We believe that DHS could learn from ATF's regulation of commercial explosives as it finalizes rules to secure the commerce of AN. In particular, DHS should recognize that employees who have been vetted and cleared by ATF to possess explosives should not have to be vetted again in order to engage in the commerce of AN.

As the subcommittee considers ATF's budget request, we ask that the Bureau's ability to perform its regulatory oversight of the explosives industry in a timely

¹ Fiscal Year 2013 ATF Budget Submission, page 49.

² Fiscal Year 2013 ATF Budget Submission, page 42.

³ "Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue", GAO, March 2011, pages 101–104, <http://www.gao.gov/new.items/d11318sp.pdf>.

⁴ Fiscal Year 2013 ATF Budget Submission, page 38.

fashion not be compromised in the push for fiscal discipline when other areas of duplication and overlap are ripe for reform.

ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES REGULATORY WORKLOAD

In the last 10 years, ATF has issued eight rulemakings of importance to IME (including two interim final rules). It has finalized three and withdrawn two. Of the three rulemakings still pending, two are interim final rules and the oldest dates to 2003. In the absence of a process to ensure timely rulemaking that is capable of keeping up with new developments and safety practices, industry must rely on interpretive guidance and variances from outdated requirements in order to conduct business. While we greatly appreciate the Bureau's accommodations, these stop-gap measures do not afford the continuity and protections that rulemaking would provide the regulated community, nor allow the oversight necessary to ensure that all parties are being held to the same standard of compliance. These regulatory tasks are critical to the lawful conduct of the commercial enterprises that the Bureau controls. ATF should be providing the resources to make timely progress in this area.

INDUSTRY STANDARDS

We take seriously the statutory obligation that ATF take into account industry's standards of safety when issuing rules and requirements.⁵ We continue to fulfill this obligation through our development of industry best practices for safety and security, membership in relevant standard-setting organizations, and active participation in forums for training. We have offered ATF recommendations that we believe will enhance safety and security through participation in the rulemaking process, in the Bureau's important research efforts, and in other standard-setting activities.

In this regard, IME has spent years developing a credible alternative to strict interpretation of quantity distance tables used to determine safe setback distances from explosives. IME collaborated in this development with the Department of Defense Explosives Safety Board (DDESB) as well as Canadian and United States regulatory agencies, including ATF. The result is a windows-based computer model for assessing the risk from a variety of commercial explosives activities called Institute of Makers of Explosives Safety Assessment for Risk (IMESAFAFR).⁶ ATF and other regulatory agencies are recognizing the value of IMESAFAFR and are participating in development meetings for version 2.0. ATF is also evaluating existing licensed locations with this risk-based approach. These efforts are vital for ATF to remain on the forefront of public safety and we strongly encourage ATF's continued support. The benefits of risk-based modeling should be officially recognized by ATF and resources should be provided to develop policies that allow the use such models to meet regulatory mandates.

LEADERSHIP

The resolution of these issues may have to wait the appointment of a new ATF Director. The Bureau has been without a Director since August 2006. We support President Obama's nomination of Andrew L. Traver for this position.⁷ We hope that the Senate will timely act on this nomination. ATF has been too long without permanent leadership.

CONCLUSION

The manufacture and distribution of explosives is accomplished with a remarkable degree of safety and security. We recognize the critical role ATF plays in helping our industry achieve and maintain safe and secure workplaces. Industry and the public are dependent on ATF having adequate resources to fulfill its regulatory responsibilities. It is up to the Congress and, in particular, this subcommittee to ensure that ATF has the resources it needs. We strongly recommend full funding for ATF's explosives program.

⁵ 18 U.S.C. 842(j).

⁶ IMESAFAFR was built on the DDESB's software model, SAFER. The DDESB currently uses SAFER and table-of-distance methods to approve or disapprove Department of Defense explosives activities. Not only can IMESAFAFR determine the amount of risk presented, but it can also determine what factors drive the overall risk and what actions would lower risk, if necessary. The probability of events for the activities were based on the last 20 years experience in the United States and Canada and can be adjusted to account for different explosive sensitivities, additional security threats, and other factors that increase or decrease the base value.

⁷ Received in the Committee on the Judiciary, United States Senate, January 5, 2011, PN44.

PREPARED STATEMENT OF THE INNOCENCE PROJECT

On behalf of the Innocence Project, thank you for allowing me to submit testimony to the Senate Committee on Appropriations Subcommittee on Commerce, Justice, Science, and Related Agencies as it considers budget requests for fiscal year 2013. I write to request the continued funding of the following programs at the described levels:

- The Paul Coverdell Forensic Sciences Improvement Grant Program (the “Coverdell Program”) at \$20 million through the Department of Justice, National Institute for Justice (NIJ);
- The Kirk Bloodsworth Post-Conviction DNA Testing Program (the “Bloodsworth Program”) at the fiscal year 2012 level of \$4 million through the NIJ; and
- The Wrongful Conviction Review Program, which is a part of the Capital Litigation Improvement Program, at \$2.5 million, for a total Capital Litigation Improvement Program allocation of \$5 million through the Department of Justice, Bureau of Justice Assistance (BJA).

Freeing innocent individuals and preventing wrongful convictions through reform greatly benefits public safety. Every time DNA identifies a wrongful conviction, it enables the identification of the real perpetrator of those crimes. True perpetrators have been identified in 45 percent of the DNA exoneration cases. To date, 289 individuals in the United States have been exonerated by DNA testing, with these innocents serving on average 13 years in prison. However, I want to underscore the value of Federal innocence programs, not to just these exonerated individuals, but also to public safety and justice. It is important to fund these critical innocence programs because reforms and procedures that help to prevent wrongful convictions enhance the accuracy of criminal investigations, strengthen criminal prosecutions, and result in a stronger, fairer system of justice.

The Coverdell Program

Recognizing the need for independent government investigations in the wake of forensic scandals, the Congress created the forensic oversight provisions of the Coverdell Program, a crucial step toward ensuring the integrity of forensic evidence. Specifically, in the Justice for All Act, the Congress required that “[t]o request a grant under this subchapter, a State or unit of local government shall submit to the Attorney General . . . a certification that a government entity exists and an appropriate process is in place to conduct independent external investigations into allegations of serious negligence or misconduct substantially affecting the integrity of the forensic results committed by employees or contractors of any forensic laboratory system, medical examiner’s office, coroner’s office, law enforcement storage facility, or medical facility in the State that will receive a portion of the grant amount.”¹

The Coverdell Program provides State and local crime laboratories and other forensic facilities with much needed Federal funding to carry out their work both efficiently and effectively. Now, more than ever, as forensic science budgets find themselves on the chopping block in States and localities nationwide, the very survival of many crime labs may depend on Coverdell funds. As the program supports both the capacity of crime labs to process forensic evidence and the essential function of ensuring the integrity of forensic investigations in the wake of serious allegations of negligence or misconduct, we ask that you fund the Coverdell Program at \$20 million in fiscal year 2013.

The Bloodsworth Program

The Bloodsworth Program provides hope to innocent inmates who might otherwise have none by helping States more actively pursue postconviction DNA testing in appropriate situations. These funds have had a positive impact that has led to much success. Many organizational members of the national Innocence Network have partnered with State agencies that have received Bloodsworth funding.²

It is worth noting that the Bloodsworth Program does not fund the work of Innocence Projects directly, but State applicants which seek support for a range of entities involved in settling innocence claims, including law enforcement agencies, crime laboratories, and a host of others—often in collaboration. Additionally, the Bloodsworth Program has fostered the cooperation of innocence projects and State agencies. For example, with the \$1,386,699 that Arizona was awarded for fiscal year 2008, the Arizona Justice Project, in conjunction with the Arizona Attorney General’s Office, began the Post-Conviction DNA Testing Project. Together, they have

¹ 42 U.S.C. 3797k(4).

² The Innocence Network is an affiliation of organizations dedicated to providing pro bono legal and investigative services to individuals seeking to prove innocence of crimes for which they have been convicted and working to redress the causes of wrongful convictions.

canvassed the Arizona inmate population, reviewed cases, worked to locate evidence and filed joint requests with the court to have evidence released for DNA testing. In addition to identifying the innocent, Arizona Attorney General Terry Goddard has noted that the “grant enables [his] office to support local prosecutors and ensure that those who have committed violent crimes are identified and behind bars.”³ Such joint efforts have also been pursued in Connecticut, Louisiana, Minnesota, North Carolina, and Wisconsin.

The Bloodsworth Program is a relatively small yet powerful investment for States seeking to do critically important work: to free innocent people who were erroneously convicted and to identify the true perpetrators of crime. The Bloodsworth Program has resulted in the exonerations of nine wrongfully convicted persons in six States, and the true perpetrator was identified in three of those cases. For instance, Virginian Thomas Haynesworth was freed thanks to Bloodsworth-funded testing that also revealed the real perpetrator. As such, we ask that you continue to fund the Bloodsworth Program at its current fiscal year 2012 funding level of \$4 million.

Wrongful Conviction Review Program

Particularly when DNA isn’t available, or when it alone isn’t enough to prove innocence, being able to prove one’s innocence to a level sufficient for exoneration is even harder than “simply” proving the same with DNA evidence. These innocents languishing behind bars require expert representation to help navigate the complex issues that invariably arise in their bids for postconviction relief. And the need for such representation is enormous when only a small fraction of cases involve evidence that could be subjected to DNA testing. (For example, it is estimated that among murders, only 10 percent of cases have the kind of evidence that could be DNA tested.)

Realizing the imperative presented by such cases, the BJA dedicated part of its Capital Litigation Improvement Program funding to create the Wrongful Conviction Review program.⁴ The program provides applicants—nonprofit organizations and public defender offices dedicated to exonerating the innocent—with funds directed toward providing high-quality and efficient representation for potentially wrongfully convicted defendants in postconviction claims of innocence.

The program’s goals, in addition to exonerating the innocent, are significant: to alleviate burdens placed on the criminal justice system through costly and prolonged postconviction litigation and to identify, whenever possible, the actual perpetrator of the crime. Above all, though, this program forms a considerable piece of the comprehensive Federal package of innocence protection measures created in recent years; without it, a great deal of innocence claims might otherwise fall through the cracks.

Numerous local innocence projects have been able to enhance their caseloads and representation of innocents as a result of the Wrongful Conviction Review Grant Program, including those in Alaska, Minnesota, Pennsylvania, and at the University of Baltimore. During the past year, the Florida Innocence Project was able to achieve the exoneration of Derrick Williams through the support of this program, and the Mid-Atlantic Innocence Project helped secure the exoneration of Thomas Haynesworth in Virginia. Grant funds enabled the Northern California Innocence Project to hire staff to screen cases, thereby permitting their existing attorneys to commit to litigation, which resulted in the exonerations of three innocent Californians, Obie Anthony, Maurice Caldwell, and Franky Carillo. With Wrongful Conviction Review funding, the Innocence Project of Minnesota was able to prove that Michael Hansen did not kill his 3-month-old. To help continue this important work, we urge you to fund the Wrongful Conviction Review Program at \$2.5 million, for a total allocation of \$5 million for the Capital Litigation Improvement Program line.

Additional Notes on the Department of Justice’s Requested Budget for Fiscal Year 2013

The Department of Justice’s fiscal year 2013 budget request defunds two of the above programs—the Coverdell and Bloodsworth programs. These programs potentially would be rolled into a much broader “DNA Initiative” for a requested fiscal year 2013 funding level of \$100 million, or perhaps not supported at all.

We are concerned about the impact that zeroing out the Bloodsworth and Coverdell programs would have on the requirements and incentives that they currently

³Arizona receives Federal DNA grant, <http://community.law.asu.edu/news/19167/Arizona-receives-federal-DNA-grant.htm> (last visited March 13, 2012).

⁴Reauthorization of the Innocence Protection Act, 111th Cong., 1st Sess., 8 (2009) (testimony of Lynn Overmann, Senior Advisor, Office of Justice Programs).

provide for States to prevent wrongful convictions and otherwise ensure the integrity of evidence. These incentives have proven significant for the advancement of State policies to prevent wrongful convictions. Indeed, the Coverdell Program forensic oversight requirements have created in States entities and processes for ensuring the integrity of forensic evidence in the wake of the forensic scandals that have undermined public faith in forensic evidence. The Coverdell Program oversight requirements are essential to ensuring the integrity of forensic evidence in the wake of identified acts of forensic negligence or misconduct.

The Innocence Project recommends that the Congress maintain and fund these two programs by name, in order to preserve their important incentive and performance requirements. Doing away with these requirements would thwart the intent of the Congress, which was to provide funding only to States that demonstrate a commitment to preventing wrongful convictions in those areas. Additionally, funding these programs would help to achieve their unique goals of providing access to postconviction DNA testing for those who have been wrongfully convicted, and helping State and local crime labs process the significant amount of forensic evidence critical to solving active and cold cases, which helps to ensure public safety.

Conclusion

Thank you so much for your time and consideration of these important programs, and the opportunity to submit testimony. We look forward to working with the subcommittee this year.

PREPARED STATEMENT OF THE INDEPENDENT TRIBAL COURT REVIEW TEAM

Thank you for the opportunity to testify today and address the serious funding needs that have limited and continue to hinder the operations of tribal judicial systems in Indian country. I am the lead judge of the Independent Tribal Court Review Team. I am here today to request funding for tribal courts in the Department of Justice, Office of Justice Programs for the Tribal Courts Assistance Program.

Budget priorities, request and recommendations:

- Increase funding for tribal courts by \$10 million;
- Maintain the set-aside for tribal courts;
- Fully fund all provisions of the Tribal Law and Order Act of 2010 (TLOA); and
- \$58.4 million authorized under the Indian Tribal Justice Act of 1993, Public Law 103-176, 25 U.S.C. 3601 and re-authorized in year 2000 Public Law 106-559 (no funds to date).

We support the 7 percent tribal set-aside (\$81,375,000) from all discretionary Office of Justice Programs to address Indian country public safety and tribal criminal justice needs. However, this is not sufficient to address the need in terms of equity for Indian country relative to funding appropriated for State, local, and other Federal justice assistance programs. On behalf of the Review Team, I ask that you give every consideration to increasing this program to the fiscal year 2010 enacted level for the Tribal Assistance Account and allow for greater flexibility for tribes to use these funds at the local level.

We support an increase in funding for:

Hiring and Training of Court Personnel.—Tribal courts make do with underpaid staff, underexperienced staff, and minimal training. (We have determined that hiring tribal members limits the inclination of staff to move away; a poor excuse to underpay staff.)

Compliance With Tribal Law and Order Act.—To provide judges, prosecutors, public defenders, who are attorneys and who are bared to do “enhanced sentencing” in tribal courts.

Salary Increases for Existing Judges and Court Personnel.—Salaries should be comparable to local and State court personnel to keep pace with the non-tribal judicial systems and be competitive to maintain existing personnel.

Tribal Courts Need State-of-the-Art Technology.—(Software, Computers, Phone Systems, Tape Recording Machines).—Many tribes cannot afford to purchase or upgrade existing court equipment unless they get a grant. This is accompanied by training expenses and licensing fees which do not last after the grant ends.

Security and Security Systems To Protect Court Records and Privacy of Case Information.—Most tribal courts do not even have a full-time bailiff, much less a state-of-the-art security system that uses locked doors and camera surveillance. This is a tragedy waiting to happen.

Tribal Court Code Development.—Tribes cannot afford legal consultation. A small number of tribes hire on-site staff attorneys. These staff attorneys generally become enmeshed in economic development and code development does

not take priority. Tribes make do with underdeveloped codes. The Adam Walsh Act created a hardship for tribes who were forced to develop codes, without funding, or have the State assume jurisdiction. (States have never properly overseen law enforcement in a tribal jurisdiction.)

Financial Code Development.—We have rarely seen tribes with developed financial policies. The process of paying a bond, for example, varies greatly from tribe to tribe. The usual process of who collects it, where it is collected, and how much it is, is never consistent among tribes.

Nationwide, there are 184 tribes with courts that receive Federal funding. For the past 6 years, the Independent Court Review Team has been traveling throughout Indian country assessing how tribal courts are operating. During this time, we have completed some 84 court reviews. There is no one with more hands-on experience and knowledge regarding the current status of tribal courts than our Review Team.

We have come into contact with every imaginable type of tribe; large and small; urban and rural; wealthy and poor. What we have not come into contact with is any tribe whose court system is operating with financial resources comparable to other local and State jurisdictions. Our research indicates tribal courts are at a critical stage in terms of need.

There are many positive aspects about tribal courts. It is clear that tribal courts and justice systems are vital and important to the communities where they are located. Tribes value and want to be proud of their court systems. Tribes with even modest resources tend to send additional funding to courts before other costs. After decades of existence, many tribal courts, despite minimal funding, have achieved a level of experience and sophistication approaching, and in some cases surpassing, local non-Indian courts.

Tribal courts, through the Indian Child Welfare Act, have mostly stopped the wholesale removal of Indian children from their families. Indian and non-Indian courts have developed formal and informal agreements regarding jurisdiction. Tribal governments have recognized the benefit of having law-trained judges, without doing away with judges who have cultural/traditional experience. Tribal court systems have appellate courts, jury trials, well-cared-for courthouses (even the poorer tribes), and tribal bar listings and fees. Perhaps most importantly, tribes recognize the benefit of an independent judiciary and have taken steps to insulate courts and judges from political pressure. No longer in Indian country are judges automatically fired for decisions against the legislature.

Assessments have indicated that the Bureau of Indian Affairs (BIA) only funds tribal courts at 26 percent of the funding needed to operate. The remainder is funded by the tribes. Tribes who have economic development generally subsidize their tribal courts. On the flip side, tribes who cannot afford to assist in the financial operations of the court are tasked with doing the best they can with what they have even at the expense of decreasing or eliminating services elsewhere. This while operating at a disadvantage with already overstrained resources and underserved needs of the tribal members. The assessment suggests that the smaller courts are both the busiest and most underfunded.

We thank this subcommittee for the additional \$10 million funding in fiscal year 2010. These funds were a godsend to tribes. Even minimal increases were put to good use. The additional funding in fiscal year 2013 will be a big asset and coupled with tribes having flexibility on how to use these funds will greatly improve access to funding for tribal courts.

The grant funding in the Department of Justice (DOJ) is intended to be temporary, but instead it is used for permanent needs; such as funding a drug court clerk who then is used as a court clerk with drug court duties. When the funding runs out, so does the permanent position. We have witnessed many failed drug courts, failed court management software projects (due to training costs), and incomplete code development projects. When DOJ funding runs out, so does the project.

As a directive from the Office of Management and Budget, our Reviews specifically examined how tribes were using Federal funding. In the past several years, there were only two isolated incidents of a questionable expenditure of Federal funds. It is speculated that because of our limited resources, we compromise one's due process and invoke "speedy trials" violations to save tribal courts money. Everyone who is processed through the tribal judicial system is afforded their constitutional civil liberties and civil rights.

We do not wish to leave an entirely negative impression about tribal courts. Tribal courts need an immediate, sustained, and increased level of funding. True. However, there are strong indications that the courts will put such funding to good use.

There are tribes like the Fort Belknap Tribe of Montana whose chief judge manages both offices and holds court in an old dormitory that can't be used when it

rains because water leaks into the building and the mold has consumed one wall. Their need exceeds 100 percent.

There are several courts where the roofs leak when it rains and those court houses cannot be fixed due to lack of sufficient funds. The Team took pictures of those damaged ceilings for the BIA hoping to have additional funds for the tribes to fix the damaged ceilings.

Tribal courts have other serious needs. Tribal appellate court judges are mostly attorneys who dedicate their services for modest fees that barely cover costs for copying and transcription fees. Tribal courts offer jury trials. In many courts, one sustained jury trial will deplete the available budget. The only place to minimize expenses is to fire staff. Many tribal courts have defense advocates. These advocates are generally law trained and do a good job protecting an individual's rights (including assuring that speedy trial limitations are not violated.) This is a large item in court budgets and if the defense advocate, or prosecutor should leave, the replacement process is slow.

Now the need is greater if the tribal courts follow the TLOA, that requires barred attorneys to sit as judges, prosecutors, and defense attorneys, when using the "enhanced sentencing" and enhanced jail detention, options of this act. Partial funding for TLOA is not an option if Indian country is expected to benefit from the intent of the Congress. We ask that you fully fund the investment you made in tribal justice systems by authorizing both the TLOA and the Indian Tribal Justice Act of 1993. Otherwise the continued lack of resources for tribal justice systems will continue to pose a threat to Native citizens and the future of Indian country.

I am here today to tell the Congress these things. We feel it is our duty to come here on behalf of tribes to advocate for better funding. Tribes ask us to tell their stories. They open their files and records to us and say, "We have nothing to hide". Tell the Congress we need better facilities, more law enforcement, more detention facilities, more legal advice, better codes—the list goes on and on. But, as we have indicated, it all involves more funding. This Congress and this administration can do something great. Put your money where your promises have been.

Finally, we support the requests and recommendations of the National Congress of American Indians.

On behalf of the Independent Review Team, thank you.

PREPARED STATEMENT OF THE LUMMI INDIAN BUSINESS COUNCIL

Good morning to the distinguished committee members. Thank you for this opportunity. I am honored to present the appropriations request of the Lummi Nation for fiscal year 2013 to the Department of Commerce. Today, I am presenting a long-term, strategic plan described in a sustainable set of coordinated proposals to address the prolonged economic and cultural disaster and the suffering of our people. This strategy is a comprehensive approach combining habitat restoration, environmental monitoring and assessment, with Lummi Hatchery infrastructure improvements. Our treaty rights are at risk and immediate and sustained action is needed to ensure our continued ability to exercise our Schelangen ("way of life").

Lummi Nation Specific Total Request is \$11,650,000

This funding is being requested under the 1855 Treaty of Point Elliot, Secretarial Order No. 3206, entitled "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act", and section 312(a) of the Magnuson-Stevens Fishery Conservation and Management Act.

Lummi Nation 2013 budget requests:

- + \$750,000 Monitoring and Assessment Program to include:
 - Habitat restoration program support;
 - Environmental and fisheries monitoring program; and
 - Lummi Natural Resources Department policy staff support.
- + \$10.9 million—Salmon/Shellfish Hatcheries
- \$6,716,000 Lummi Bay and Skookum Hatchery Improvements; and
- \$4,184,000 Lummi Shellfish Hatchery Improvements.

Department of Justice Lummi Nation Specific Requests

Eliminate Expensive Granting Systems in Favor of Transfers of Funds.—Title IV and V of Public Law 93–638 provide a process for federally recognized tribes to negotiate and annual funding agreement with the Federal Government to receive transfers of funds on a continuing basis. The tribes and the Federal Government benefit through the reduction of the costs of the formal granting systems. In most cases these additional costs are sufficient to significantly increase services at the reservation level, without an increase in Federal expenditures. Continued reliance

on the grant process increases administrative costs without increasing services to tribal members.

Justification of Requests—Lummi Nation Specific Total Request is \$11,650,000

- + \$750,000 Monitoring and Assessment Program
- + \$10.9 Million for Lummi Hatchery Infrastructure—Stock Re-Building Program

The Lummi Nation requests funding to support a strategic plan to increase production of salmon from our hatcheries to offset lost fishing opportunities imposed by the listing of Chinook salmon and Southern Resident Orca whales under the Endangered Species Act (ESA). The Lummi Nation appropriation requests represent an investment in a sustainable strategy to maintain a future moderate living for fishermen as guaranteed by the treaty 1855 Point Elliot Treaty, affirmed by the U.S. Supreme Court (1979). Nontribal fishers will also benefit from the implementation of this strategy.

The Lummi Nation currently operates two salmon hatcheries and one shellfish hatchery that support tribal and nontribal fisheries in the region. Lummi Nation hatcheries were originally constructed utilizing Department of Commerce funding appropriated from 1969–1971. Since that time hatchery operations and maintenance funding from the Bureau of Indian Affairs has been used. At the time of construction, those hatcheries were cutting edge. However, with the passage of time and limited financial resources, the original hatchery infrastructure needs to be repaired, replaced or completely modernized. Lummi Nation fish biologists estimate that these facilities are now operating at 40 percent of their productive capacity. Through the operation of these hatcheries, the Lummi Nation annually produces 1 million fall Chinook salmon, 2 million Coho salmon, and 6.5 million shellfish seed and 300,000 pounds of clams. These production levels simply do not provide the fishing opportunity and associated economic benefits necessary to offset the financial loss caused by the Sockeye Salmon fisheries disaster. To provide sufficient salmon stock resources and shellfish harvest opportunities on an annual basis to the Lummi fishing fleet (and nontribal fishers), the hatchery operations and associated infrastructure require rehabilitation.

The hatchery infrastructure improvement plan represents an investment that increases the immediate annual return and is a long-term sustainable activity.

Detailed hatchery line item descriptions are listed below:

- Lummi Nation Skookum Creek Hatchery—\$725,000
 - \$725,000 *New Raceways*.—Replace originally constructed infrastructure that is deteriorating and falling apart.
- Lummi Bay Hatchery—\$5,991,000
 - \$5,536,000 *Nooksack River Pump Station and Transmission Water Line*.—The project will increase annual production by 300 percent by providing additional water to the hatchery. The major limiting factor to production at this facility is lack of freshwater. This project will ensure adequate water supply to achieve needed production levels.
 - \$455,000 *Rearing Pond Improvements*.—Repair and pave juvenile rearing pond and restructure adult ladder and attraction complex.
- Lummi Shellfish Hatchery—\$4,184,000
 - \$484,000 *Improvements at Shellfish Hatchery*.—Repair and expand current facility to increase seed production by improving heating and cooling systems, live feed production, and grow out tank space.
 - \$2.4 Million *to Build a Geoduck-Specific Hatchery*.—A new geoduck-specific hatchery would allow for the current facility to be dedicated to oyster and manila clam production. Increased seed production will increase enhancement activities on Lummi tidelands to create jobs for tribal harvesters and support the west coast shellfish industry and associated businesses.
 - \$1.3 Million *Repair the Seapond Tidegates*.—A feasibility level engineering study indicated that \$1.3 million is needed to repair the Seapond tidegates, which will both improve circulation within the Lummi Bay seapond to increase production at both the shellfish and Lummi Bay salmon hatcheries and production of manila clams in the seapond and also help protect the facility in the event of an oil spill from the two petroleum oil refineries located immediately north of the reservation.

Background Information

The Lummi Nation is located on the northern coast of Washington State, and is the third-largest Tribe in the State, serving a population of more than 5,200 people. The Lummi Nation is a fishing tribe and is the largest fishing tribe in the United States. We have drawn our physical and spiritual subsistence from the rivers, ma-

rine tidelands, and marine waters since time immemorial. Lummi has rights guaranteed by the 1855 Treaty of Point Elliot to harvest fish, shellfish, and game in our Usual and Accustomed area. The *Boldt* decision of 1974 re-affirmed that right, and designated Lummi as a co-manager of a once abundant salmon fishery. Now, the abundance of wild salmon is gone. In 1985, the Lummi fishing fleet landed more than 15 million pounds of finfish and shellfish. In 2001, the combined harvest was approximately 3.9 million pounds. The remaining salmon stocks do not support tribal fisheries, and the Nation is suffering both spiritually and economically. Our treaty rights are at risk—we must act to preserve, promote, and protect our Schelangen (“way of life”) or our culture will disappear.

In 1973, the ESA was passed. ESA should have resulted in improved salmon habitat and more resources for salmon habitat restoration, but ESA has become a “double-edged sword”. Today, ESA has impacted tribal hatchery production and tribal harvests for commercial, subsistence, and ceremonial purposes. Tribal dependence on salmon and the timing of economic development results in tribal members and tribal governments bearing a disproportionate burden for the conservation of listed species. Lummi treaty fishers are directly impacted by the listing of Puget Sound Chinook, Bull trout, Puget Sound steelhead, and Southern Resident Orca whales. Secretarial Order 3206, entitled “American Indian Tribal rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act”, specifically states that “. . . the Departments will carry out their responsibilities in a manner that . . . strives to ensure that Indian Tribes do not bear a disproportionate burden for the conservation of listed species . . .”. The Lummi Nation is actively engaged in recovering listed salmon species in our watershed, restoring critical habitat, and monitoring listed population to determine which factors adversely affect those populations and other critical but nonlisted species. The Lummi Nation cannot; however, continue to recover salmon and maintain our way of life without funding support/appropriations from the Federal Government.

Continuous Sockeye Fisheries Disaster Declaration

In 2008, the Department of Commerce reissued the sockeye fishery disaster declaration in a statement contained in a letter to Lummi Nation, (see letter from Secretary, Department of Commerce, November 3, 2010). The declaration conforms with the findings of the Congressional Research Services (CRS)—CRS Report to Congress, Commercial Fishery Disaster Assistance, (RL-34209). For more information, see CRS Report RS21312, by Eugene H. Buck.

In 2010, the Fraser River sockeye salmon run was the largest is recorded history. After years of sitting on the beach, the Lummi sockeye fleet was able to harvest sockeye salmon again. One good year, however, does not make up for the previous years of continuous fisheries disasters and associated loss of financial and cultural benefits. To account for the lack of a consistent sockeye salmon fishery and to make up for the lost fishing opportunity attributed to habitat degradation and subsequent salmon population crashes, the Lummi Nation plans to bolster both finfish and shellfish production from its facilities.

Hatcheries ensure future salmon populations large enough to support our families and our way of life, until such time as the habitat is able to sustain harvestable levels of salmon. The Lummi Nation recognizes that hatcheries alone will not restore salmon stocks to historical levels. The Lummi Natural Resources Department allocates a substantial amount of time, effort, and funding to improve and monitor freshwater habitat, manage and monitor tribal harvest activities, and restoring ecosystem functions in the Nooksack River Basin.

By increasing hatchery production of shellfish, chum salmon, coho salmon, and Chinook salmon, the Lummi Nation will create a reliable backup resource to salmon fishers and decrease Tribal dependence on the sockeye fishery. Additionally, we seek to raise the value of these harvests through advanced marketing, the introduction of a fisher’s market, and the shellfish grow out operations for shellfish products.

Lummi Specific Requests—Bureau of Indian Affairs

+ \$2 million—Phase 1. *New Water Supply System*.—Increase in funding for hatchery construction, operation, and maintenance. Funding will be directed to increase hatchery production to make up for the shortfall of wild salmon.

The Lummi Nation currently operates two salmon hatcheries that support tribal and nontribal fishers in the region. The tribal hatchery facilities were originally constructed utilizing Federal funding from 1969–1971. Predictably some of the original infrastructure needs to be repaired, replaced, and/or modernized. Lummi Nation fish biologists estimate that these facilities are currently operating at 40 percent of their productive capacity. Through the operation of these hatcheries the tribe annually produces 1 million fall Chinook and 2 million Coho salmon. To increase production,

we would like to implement a “phased approach” that addresses our water supply system. The existing system only provides 850 gallons per minute to our hatchery. To increase production to a level that will sustain tribal and nontribal fisheries alike, we need to increase our water supply fourfold. A new pump station and water line will cost the tribe approximately \$6 million. We are requesting funding for the first phase of this project. Our goal is to increase fish returns by improving aquaculture and hatchery production and create a reliable, sustainable resource to salmon fishers by increasing enhancement.

Regional Requests

The Lummi Nation supports the fiscal year 2013 requests of the Northwest Indian Fisheries Commission and the Treaty Rights and Risk Initiative.

National Requests

The Lummi Nation supports the fiscal year 2013 requests of the National Congress of American Indians.

PREPARED STATEMENT OF THE MARINE CONSERVATION INSTITUTE

Madam Chairwoman and members of the subcommittee: Marine Conservation Institute, based in Bellevue, Washington, is a nonprofit conservation organization that uses the latest science to identify important marine ecosystems around the world, and then advocates for their protection. I wish to thank the members of the subcommittee for the opportunity to submit written testimony on the fiscal year 2013 appropriations and request \$5.3 billion for National Oceanic and Atmospheric Administration (NOAA). This level of funding would support satellite acquisition, while restoring funding for the ocean, coastal, and fisheries programs to the fiscal year 2010 enacted level.

America's oceans play a vital role in our Nation's economy. According to the National Ocean Economics Program, the U.S. ocean economy contributes more than \$130 billion to our Nation's Gross Domestic Product from living marine resources, tourism, recreation, transportation, and construction. Additionally, more than 2.4 million jobs in the United States depend on the marine environment. NOAA's programs are critical to fostering this activity and protecting ocean health for sustained use. I would like to highlight a few programs which focus on NOAA's conservation mandate.

Hawaiian Monk Seal Recovery

NOAA has responsibility for recovering the Hawaiian monk seal, one of the most critically endangered marine mammals in the world. It is also the only marine mammal whose entire distribution range lies within our national jurisdiction; thus the United States has sole responsibility for its continued survival. Over the last 50 years, the Hawaiian monk seal population has declined to less than 1,200 individuals. The majority of the population resides in the remote Papahānaumokuākea Marine National Monument; however, a smaller (but growing) population resides in the Main Hawaiian Islands.

NOAA is making progress implementing the monk seal recovery plan, and needs additional resources to stay on track. It has been conservatively estimated that 30 percent of the monk seals alive today are due to direct actions by NOAA and its partners.¹ The Congress' decision to more than double the program funds to approximately \$5.6 million in fiscal year 2009 and fiscal year 2010 created crucial momentum to protect the Hawaiian monk seal from extinction. NOAA conducts annual research field camps in the Northwestern Hawaiian Islands (NHI), conducts outreach to fishermen and the general public concerning the seal's ecological and cultural importance, intervenes to rescue entangled or wounded seals, investigates seal deaths, and conducts vital research studies on disease and mortality mitigation.

However, funding levels were cut in half to about \$2.7 million for fiscal year 2011 and fiscal year 2012. Maintaining this level of reduced funding will continue to restrain the rollout of recovery actions, including the translocation of seals to areas where they can mature with greater likelihood of survival. Marine Conservation Institute (MCI) strongly recommends the subcommittee reinstate funding to \$5.5 million in fiscal year 2013.

¹McAvoy, Audrey. “Feds—Efforts to rescue monk seals helping species”. Associated Press in West Hawaii Today, January 26, 2012.

Deep Sea Coral Research and Technology Program

The discovery of widespread deep sea coral ecosystems within U.S. waters has challenged scientists to learn the extent of these important ecosystems and develop strategies on how to protect them. The Deep Sea Coral Research and Technology Program was established by NOAA under the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. NOAA is charged with mapping and monitoring locations where deep sea corals are likely to occur, developing technologies designed to reduce interactions between fishing gear and deep sea corals, and working with fishery management councils to protect coral habitats.

MCI was pleased to see increased funding for the National Marine Fisheries Service's (NMFS) Deep Sea Coral Program to a level of \$2.5 million in fiscal year 2010; we recommend that level be sustained in fiscal year 2013. Previous funding has allowed for coral habitat mapping and analysis along the west coast and in Southeastern U.S. waters. Sustained funding will permit the continued mapping of coral areas off the west coast and in Alaska, as well as the initiation of coral mapping in Mid-Atlantic waters. There is a great need for habitat assessments to inform fisheries management and development decisions. Reduced funding levels would hamper the compilation of this information.

Marine Debris Program

Marine trash has become one of the most widespread pollution problems affecting the world's oceans and waterways. An estimated 8.6 million pounds of debris was recovered worldwide in 2010. Recently, much attention has been given by the press to the debris generated by the Japanese tsunami tragedy, and its impacts on ocean life and tourism in Hawaii and along the west coast. Research has shown that debris has serious effects on the marine environment, wildlife, the economy, and human health and safety. It is estimated that as much as 1,250,000 tons of tsunami debris could reach the United States over the next several years.²

The Marine Debris Research, Prevention and Reduction Act was enacted in 2006 to identify, assess, reduce, and prevent marine debris and its effects on the marine environment. The Marine Debris Program received a much needed increase in fiscal year 2012 to a level of \$5 million to address the incoming tsunami debris. The President's fiscal year 2013 budget recommends relocating the Marine Debris Program to NMFS, Office of Habitat Conservation. While understanding the need to improve efficiency, MCI believes the program would be more effective if it remained under the National Ocean Service at the current funding level of \$5 million. Current placement allows the program to leverage resources available to the Office of Response and Restoration and work in better collaboration with fisherman since the program is currently housed under the National Ocean Service and not together with the regulators of NMFS.

National Marine Sanctuaries

Presently, the Office of National Marine Sanctuaries (ONMS) is responsible for managing the Nation's 13 marine sanctuaries and Papahānaumokuākea Marine National Monument in the NHI. Collectively, these 14 units cover more area than the National Park System.

MCI recommends \$54.5 million in fiscal year 2013. This amount includes \$49 million for the operations and research account, and \$5.5 million for the construction account. This would allow ONMS to better fulfill its responsibilities as a leader in ocean management and conservation. The funding would allow ONMS to maintain current management capabilities and complete current construction projects. Less funding would likely require the termination of contractors performing full-time equivalents duties, eliminate most vessel days at sea, and reduce operations at many visitor centers, thereby reducing local community benefits.

The President's fiscal year 2013 budget recommends merging the Marine Protected Areas Center with the National Marine Sanctuaries Program. If this merger were to occur, I recommend funding for the ONMS be increased by \$4 million to ensure the MPA Center mission and projects continue.

Regional Ocean Partnerships

Regional Ocean Partnerships (ROP) facilitate the cooperation and integration of ocean and coastal resources management between local, State, and Federal agencies. Coastal States Governors have already established several regional ocean partnerships to collaboratively address priority marine and coastal issues.

²McAvoy, Audrey. "Tsunami debris spreads halfway across Pacific". Associated Press in Seattle Times, February 28, 2012.

The President's fiscal year 2013 budget requests \$4 million in fiscal year 2013 to provide competitive grants to address issues within each U.S. region. While this amount is \$0.5 million more than enacted fiscal year 2012 levels, it is \$3.5 million less than the fiscal year 2011 enacted level. MCI recommends a minimum funding level of \$7.5 million to assist these important collaborative efforts.

Ocean Acidification

Ocean acidification is the process by which seawater becomes corrosive to calcium carbonate structures found in many of the shells and skeletons of marine organisms, such as shellfish, corals, and fish. It is a major marine impact associated with elevated carbon dioxide levels in the atmosphere. Ocean acidification has already begun to negatively impact commercial and recreational fishing, as well as coastal communities and economies.

The Federal Ocean Acidification Research and Monitoring Act that passed in 2009 calls upon NOAA to coordinate research, establish a monitoring program, identify and develop adaptation strategies and techniques, encourage interdisciplinary and international understanding of the impacts associated with ocean acidification, improve public outreach, and provide critical research grants to increase understanding of the ecosystem impacts and socioeconomic effects of ocean acidification. Ocean acidification research received \$6.4 million in fiscal year 2012. MCI recommends a level of \$11.6 million in fiscal year 2013 to more fully understand the impacts of ocean acidification on our coastal communities and economy.

Law Enforcement

NOAA's Office of Law Enforcement (OLE) is responsible for enforcing the laws that conserve and protect our Nation's fisheries, protected species, and national marine sanctuaries and monuments. The office is also responsible for enforcing the United States' international commitments to fight illegal, unregulated, and unreported fishing, a practice that threatens to undermine global fish stocks, such as the Pacific tuna fishery in which the United States participates. In addition, the Office of General Counsel Enforcement Section provides legal services and guidance to NOAA's OLE.

NOAA's jurisdiction spans 3.4 square million miles of coastal and marine environments, including the Nation's 13 marine sanctuaries and four marine national monuments. The Pacific region alone poses a challenge for NOAA law enforcement as it spans 1.5 million square miles, nearly one-half of the U.S. Exclusive Economic Zone.

MCI strongly supports the President's fiscal year 2013 budget request of \$67.1 million for NOAA's OLE. This will allow OLE to maintain current capabilities, while potentially adding additional resources in the Pacific region. MCI also recommends an additional \$150,000 for another attorney in the Pacific Islands Office of General Council Enforcement Section, as there is currently only one attorney with no support staff.

Marine Operations and Maintenance

The Office of Marine and Aviation Operations (OMAO) operates NOAA's fleet of specialized ships to fulfill the agency's environmental and scientific missions. OMAO provides vessels for fisheries research, oceanographic and atmospheric research, and hydrographic surveys. Ships are also used for monitoring marine sanctuaries and monuments, and servicing the early warning tsunami and weather system equipment.

Not since 2007 has OMAO operated its ships at full capacity, largely due to budget constraints. In 2011, OMAO allocated base ship time for each of its 17 vessels at about 135 days at sea, which is about 55 percent of the fleet's operational capability (max = 220 days per vessel). NOAA's program offices have had to "buy" additional days to fulfill some of their basic mandates. For instance, NMFS purchased an additional 542 days in fiscal year 2011. Unfortunately, the line offices are experiencing budget constraints as well.

It makes no sense for NOAA's ships to be partially idle when one of NOAA's primary missions is to manage and restore our oceans. MCI supports the President's request of \$166 million for OMAO in fiscal year 2013. It is a step toward more fully funding NOAA's fleet to fulfill its mandates.

In summary, MCI respectfully requests that the subcommittee maintain or slightly augment funding for the conservation side of the NOAA budgets.

PREPARED STATEMENT OF MARY P. PAULSEN

Today, I am writing to share my story with you; but most of all I am writing to you as elected officials to ask you to please stop the egregious use of taxpayer dollars allocated to Governmental agencies and used to promote an agenda to close Medicaid certified care programs across our country. Care is provided for people with significant disabilities in what are now called Intermediate Care Facilities/Intellectual Disabilities (ICF/DD) that are operated both by States and by private business. I am concerned with the budget request for the Civil Rights Division (CRD) in the Department of Justice (DOJ) for an additional \$5.1 million. The request states that they need this money to strengthen civil rights enforcement efforts on behalf of vulnerable people (CRIPA). The most unfortunate thing about CRIPA is that it cannot be used to enforce proper care in private facilities where significant abuse/neglect issues occur but only in institutions operated by States (public).

My son is a vulnerable adult. He is 47 years old and has severe autism, epilepsy and Obsessive-Compulsive Disorder. He is also nonverbal. I am his legal guardian. Our life journey has been long and difficult. As a parent, I was always hoping that someone, something, somewhere would make a difference for him and he would become more functional and normal. Parents live on hope and are easily convinced by philosophical and ideological ideas. I now realize that this can be an extremely false hope. When we could not provide him with the care he required due to a death in the family, he was placed in our State institution. Autism has a level of hyperactivity that people cannot understand who have not lived it. You must know where the child is and what he is doing every minute of the day. I have been a volunteer advocate for more than 40 years so I am aware of what is and has been going on with regards to services for people with disabilities. I succumbed to the "normalization" concept and moved my son from our State facility to a privately managed group home when he was in late adolescence, age 20, and had become assaultive. The transition was difficult and many changes and moves were involved. Nothing has ever been easy for us.

The popular idea of promoting independence and self-determination for people with disabilities nearly resulted in my son's death in 2006. The group home system lacks oversight and abuse and neglect happens. In our case the provider violated the agreement (contract) with regard to my son having one-on-one staffing. He was left alone in the kitchen of the home. His shirt caught on fire (gas stove) and he had second- and third-degree burns on his back from his waist to his shoulder blades. His care and recovery was a long and difficult road. I realized that he was not safe and could not be kept safe in a group home environment. After a battle with our State bureaucracy, I have succeeded in placing him back in our State operated developmental center (ICF/ID) with all the Medicaid regulations and oversight. Federal law supports my right as his legal guardian so choose where he will receive services (care), but I had to fight the system here in Utah to have my choice honored. My son needs a restricted campus with many well-trained people around him in order to keep him safe—a place where everyone knows him. It is unfortunate that we had to learn this the hard way.

Advocates who have pursued closure of congregate care facilities have chosen to ignore the cases of abuse, neglect, and even death that occur in the group homes and apartments. For many people with disabilities, the level of care to minimize the risk of injury can best be provided in adequately funded and properly monitored congregate care facilities (ICF/ID) where the staff is well-trained.

I believe it is a violation of my son's civil rights and mine as his guardian for us to be subjected to misinterpretations of the *Olmstead* decision as well as Americans with Disabilities Act to force the agenda of closure of public congregate care facilities in this country. There are many people with significant disabilities who need more care than can be provided in the Home and Community Based Waiver system. With the population increase, the most severely impaired are in the minority and often our voices are simply not heard. The number of adherents for an idea should not be the determining criterion for its truth or falsehood. If the closure of large facilities is based on majority rule, then those of us composing the minority will be the losers—often the losers of life itself.

I am asking you to stop funding to the CRD of DOJ that allows them to pursue de-institutionalization efforts.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF LATINO ELECTED AND APPOINTED OFFICIALS

Chairwoman Mikulski, Ranking Member Hutchison, and members of the subcommittee: I am Arturo Vargas, the Executive Director of the National Association

of Latino Elected and Appointed Officials (NALEO) Educational Fund. I also serve as Co-Chair of The Leadership Conference on Civil and Human Rights Census Task Force, which brings together leading civic and civil rights organizations to address pressing census issues. Thank you for the invitation to appear before you today on behalf of the NALEO Educational Fund and The Leadership Conference Census Taskforce to support the President's fiscal year 2013 request to the Congress of \$970.4 million in discretionary funding for the U.S. Census Bureau.

The NALEO Educational Fund is a nonprofit, nonpartisan organization that facilitates full Latino participation in the American political process, from citizenship to public service. Our constituency includes the more than 6,000 Latino elected and appointed officials nationwide. Our Board members and constituency include Republicans, Democrats, and independents. The NALEO Educational Fund is one of the Nation's leading organizations in the area of Census policy development and public education, and we are deeply committed to ensuring that the Census Bureau provides our Nation with the most accurate count of its population. Since 2000, the NALEO Educational Fund has served on the Secretary of Commerce's 2010 Census Advisory Committee, or its predecessor, the Decennial Census Advisory Committee, and we actively participated in the committee's discussions surrounding the planning for the 2010 enumeration. In October 2009, we launched the "ya es hora, ¡HAGASE CONTAR! (Make Yourself Count!)" campaign, which focused on promoting the importance of the census, educating individuals about filling out their census forms, and encouraging households to mail back their responses.

The Leadership Conference is ideally positioned to address many of the most pressing issues affecting the successful implementation of Census Bureau programs, surveys, and initiatives. The Leadership Conference's coordinating role among so many diverse organizations allows for the sharing of different perspectives, as well as the development of broader strategies that occur within the purview of any individual organization. All of its work draws on the expertise of the cross-section of national organizations, and examines the impact of civil rights policy on a broad range of constituencies.

Mrs. Chairwoman, as your committee prepares to consider the fiscal year 2013 Commerce, Justice, and Science, and Related Agencies (CJS) appropriations bill, we urge your support for the administration's fiscal year 2013 request to the Congress for the Census Bureau. We believe this amount is the minimum necessary to preserve core statistical programs and ensure the continued reliability of data vital for public, private, and nonprofit sector decisionmaking now and in the future. In particular, reliable and accurate data about the Latino community are critical for the prosperity and well-being of the entire country. The results of the 2010 census demonstrated the importance of the decennial enumeration for charting the dramatic growth of our Nation's Latino community and the implications of that growth for the future of our economy and democracy. The Latino population in the United States was 50.5 million in 2010, and Latinos are the Nation's second-largest and fastest-growing population group. Between 2000 and 2010, the Latino share of the population increased from 12.5 percent (1 in 8 Americans) to 16.3 percent (1 in 6 Americans).

For fiscal year 2013, the President proposed a total budget of \$970.4 million in discretionary funding for the Census Bureau, a 3-percent increase more than the fiscal year 2012 funding level of \$942 million. In this testimony, I will address how the administration's request is necessary to maintain the reliability of American Community Survey (ACS) data, begin planning for a cost-effective 2020 decennial census, and effectively meet the constitutional responsibilities of the Bureau. I would like to start by providing detailed information about the President's request regarding two critical programs:

- the ACS; and

- the planning for the 2020 census.

ACS.—For fiscal year 2013, the President requested \$252.7 million, which represents a decrease of \$10.9 million for the ACS program. ACS is implementing several changes in fiscal year 2013, including an Internet response option and a reduction in the scale of the Failed Edit Follow-up Operation.

We believe the fiscal year 2013 budget request sufficiently invests in the ACS program to ensure that the sample size is large enough to produce reliable and useful data for less populated geographic areas, such as towns and rural counties, and especially less populous subgroups. This funding also would allow for improved telephone and field data collection; sufficient follow-up of unresponsive households in remote areas; and a comprehensive review of 3-year and 5-year ACS estimates. These activities are imperative for ensuring the ACS can continue to provide valid data about the socio-economic and demographic characteristics of the American people on an ongoing, annual basis.

Policymakers at all levels of government rely on ACS data to make important decisions that affect the lives of all Americans. These data help make such determinations as the number of teachers that are needed in classrooms, the best places to build roads and highways, and the best way to provide health and public safety services to our neighborhoods and communities. According to a July 2010 report by Andrew Reamer of the Brookings Institute which analyzed fiscal year 2008 Federal Government spending, 184 Federal domestic assistance programs used ACS-related datasets to help guide the distribution of \$416 billion, 29 percent of all Federal assistance. ACS-guided grants accounted for \$389.2 billion, 69 percent of all Federal grant funding. Most of ACS-guided Federal assistance goes to State governments through a few large grant programs which support highway infrastructure and aid low-income households. The 10 largest ACS-guided assistance programs include several that help ensure that Latino families and their children receive quality healthcare, and housing, including Medicaid, section 8 housing programs, and school education grants.

Other Federal programs also rely on the ACS for implementation of the programs and priorities of the Federal Government. For example, the Department of Defense uses ACS data for the implementation of the procurement technical assistance it provides to businesses. The Department of Agriculture uses the data for water and waste disposal system planning in rural communities, where a significant number of Latino families live. In addition, sound implementation of the protections of the Voting Rights Act of 1965 relies on ACS data, because those data are used to make determinations under section 203, which requires jurisdictions with a high percentage of people who are not yet English language proficient to offer language assistance to citizens during the electoral process.

High-quality, objective, and universal ACS data are also critical for our Nation's private sector. Without these data, businesses and nonprofit organizations will lose the ability to understand their customers and the communities they serve, and allocate their fiscal and human resources prudently. American companies rely on ACS data every day to make vital decisions about where to locate and expand; what goods and services to offer; the scope of employee training needed; and long-term investment opportunities. Thus, fiscal year 2013 funding to support reliable ACS data is critical for sound government and business profitability, and the pursuit of national economic prosperity.

2020 Census.—As 2010 census activities wind down with final evaluations and data products, planning for the next decennial enumeration is on its cyclical upswing. The President's fiscal year 2013 request for 2020 census activities is nearly double the fiscal year 2012 funding level, from \$66.7 million in fiscal year 2012 to \$131.4 million in fiscal year 2013. We strongly support this important funding increase. As the Government Accountability Office (GAO) has consistently documented, reasonable investments in census planning in the early part of the decade will help save millions, and perhaps billions, of dollars in census costs down the road.

We know from experience that insufficient funding for early decennial census planning leads to ballooning costs later in the decade. The Census Bureau must invest resources early in the decade to ensure cost-effective, successful implementation of census operations in the future. The pace of technological change and rapid evolution of communication modes make ongoing research and testing essential. Similarly, keeping up with changes in the Nation's housing stock and roads could save hundreds of millions of dollars during census preparations in 2018–2019, allowing the Bureau to confine final address checking to areas in frequent transition. As Director Groves has stated, the vision is, "An efficient and quality census that counts people once, only once, and in the right place." The fiscal year 2013 budget also supports another critical Bureau central focus of the 2020 census planning: To design programs and operations for the 2020 census that have residual benefits for other Census Bureau data collections.

In this spirit, we are working with the Census Bureau to continue a robust Partnership Program in preparation for the 2020 census. During the decennial enumeration, the Census Bureau used the Partnership Program to engage community-based organizations, religious leaders, educators, local businesses, and media outlets who had strong relationships with hard-to-count populations and were familiar with the barriers they face in census participation. The Bureau utilized the assistance of Partnership Program stakeholders in educating residents about the importance of returning their census questionnaires, and helping them surmount the barriers in completing and returning their forms. In short, the Partnership Program ensured that timely and locally relevant information from the Bureau reached community leaders, and that local enumeration efforts were able to use limited resources efficiently. We believe that the program, which proved to be an integral component of

the census 2010 outreach efforts, remains critical for reaching hard-to-count populations and ensuring their participation in future surveys and censuses. However, the severe limitations being placed on the Bureau's budget have proven to be an impediment to guaranteeing that this important initiative will continue. The President's fiscal year 2013 budget request may allow for the resumption of this critical program.

Support for the full amount of census funding in the President's 2013 budget is particularly crucial in light of past experiences with census expenditure reductions in postenumeration years. Unfortunately, the Congress has often turned to the Census Bureau's budget as a source of expendable funds after each decennial census, overlooking the important work the agency does year in and year out and starving the critical research and testing phases of the next enumeration. The fiscal year 2012 budget was no exception.

In fiscal year 2012, this subcommittee \$88 million more than the House version of this bill. Fortunately, the final appropriation legislation offered just enough funding for the Bureau to proceed with its core activities. The so-called "minibus" appropriations bill—encompassing 3 of 12 Federal appropriations accounts, including the CJS appropriations bill—allocated \$942 million for the Census Bureau. However, we strongly caution against relying on money from the Working Capital Fund to pay for ongoing core activities.

As a result of fiscal year 2012 and fiscal year 2011 budget cuts—and on its own accord—the Census Bureau has committed to reducing costs by taking bold steps to streamline operations. In fiscal year 2012, it realigned its national field office structure by permanently closing six regional offices. Last year, the Bureau eliminated a number of lower-priority programs. In addition, the Bureau has demonstrated its determination to make modest investments in required activities to help save billions of dollars.

We understand the fiscal environment requires the Congress to make difficult decisions and curtail current spending. We recognize that there are many worthy programs funded through the CJS appropriations bill. Yet, we believe that making cuts in the President's fiscal year 2013 budget request for the Census Bureau will be counterproductive to an agency whose data are essential to running our government, informing our policies, and influencing economic productivity.

I thank the Chairwoman, the Ranking Member, and the subcommittee once again for providing us with the opportunity to share our views today in support of the President's fiscal year 2013 budget request for the Census Bureau.

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF MARINE LABORATORIES

Madam Chair and members of the subcommittee, my name is Shirley Pomponi and I direct the National Oceanic and Atmospheric Administration (NOAA) Cooperative Institute for Ocean Exploration, Research and Technology at Florida Atlantic University. I submit this statement on behalf of more than 100 marine labs that make up the National Association of Marine Laboratories (NAML). On behalf of all of my fellow marine lab directors, I thank this subcommittee for the support it is has provided for ocean, coastal, and Great Lakes research and education through NOAA, the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA).

NAML is a nonprofit organization of member institutions representing coastal, marine, and Great Lakes laboratories in every coastal State, from Guam to Bermuda and Alaska to Puerto Rico. Member laboratories serve as unique "windows on the sea," connecting scientists and citizens with the rich environmental mosaic of coastal habitats and offshore oceanic and Great Lakes regions. NAML laboratories conduct research and provide academic, education, and public service programs to enable local and regional communities to better understand and manage their ocean, coastal and Great Lakes cultural and natural resources.

NAML has two key priorities relevant to this subcommittee as part of its fiscal year 2013 public policy agenda:

- to maintain strong support for extramural marine research and education programs at NOAA and the NSF; and
- a recommendation for a cost-saving national partnership program aimed at collocating NOAA and other Federal agency marine science personnel and facilities at the more than 100 NAML laboratories located all over the country.

I am here today to present the case for the restoration of funding within the NOAA appropriation that this subcommittee will draft in the near future. These funds provide vital and irreplaceable support for extramural research, education,

and conservation programs, and are among the most well-spent and highly leveraged Federal dollars.

The coastal population of the United States increased by nearly 51 million people from 1970 to 2010, with 52 percent of the Nation's total population living in coastal watersheds. By 2020, the coastal population is expected to grow by another 10 percent or 15.6 million. In 2009, the coastal economy contributed \$8.3 trillion to the Nation's Gross Domestic Product resulting in 66 million jobs and wages worth an estimated \$3.4 trillion. Recreational coastal fishing contributed about \$73 billion in total economic impact supporting more than 320,000 jobs. For commercial fishing, the average annual value of all U.S. marine fisheries from 2008 to 2010 is estimated at \$4 billion, providing about 1 million jobs and generating more than \$32 billion in income. Our Nation's ports, often located in the heart of sensitive coastal ecosystems, are an essential driver of the U.S. economy. About \$1.9 trillion worth of imports came through U.S. ports in 2010, supporting an estimated 13 million jobs. More than 50 percent of the total energy produced domestically occurred in coastal States, including natural gas production, electricity generation, and oil and gas production. Coastal areas are providing opportunities for renewable energy development with projects that seek to extract energy from the movement of ocean water due to tides, currents, or waves; from the temperature differential between hot and cold ocean water; and from strong winds in offshore ocean environments.

Meeting stewardship responsibilities for the oceans, coasts, and Great Lakes requires a robust science and education enterprise. Coastal areas face challenges that threaten fisheries resources, impact recreational and commercial resources and affect the health of ecosystems. The Deepwater Horizon oil spill in the Gulf of Mexico and its continuing impact on the natural resources of the region illustrate the need for a robust and responsive ocean and coastal sciences enterprise. We must continue to invest in the Nation's research enterprise that has been responsible for our long-term prosperity and technological pre-eminence through interdisciplinary research spanning a landscape of disciplines, from physics to geology, chemistry to biology, engineering to economics, and modeling to observation.

NATIONAL SCIENCE FOUNDATION

NAML is highly supportive of the NSF and its fiscal year 2013 budget request. NSF funds vital basic and translational research that enhances the understanding and governance of the Nation's oceans, coasts, and Great Lakes. More than 90 percent of NSF's budget directly supports research at universities and laboratories in all 50 States. A robust NSF fuels the economy, boosts national competitiveness, supports a scientific and technologically literate workforce and provides new knowledge—all of which are essential for national and economic security. Science and engineering research, education, and related infrastructure support, such as the core research programs in the geosciences, the Ocean Observatories Initiative, and the Field Stations and Marine Lab infrastructure program, are especially important in enabling our national network of nongovernment marine laboratories to serve their vital, cost-effective role as community-based research enterprises.

NAML strongly supports the Science, Engineering, and Education for Sustainability (SEES) initiative. SEES focuses on targeted programs that promote innovative interdisciplinary research to address pressing societal issues of clean energy and sustainability. In fiscal year 2013, SEES includes five programs that contain translational themes:

- Coastal SEES;
- Arctic SEES;
- Sustainable Chemistry, Engineering, and Materials;
- Creating a More Disaster-Resilient America; and
- a program on the Role of Information Sciences and Engineering in SEES.

NSF's support for ocean science education should continue to build on past successes, such as the Centers for Ocean Science Excellence in Education, and should also continue to integrate new approaches and themes, for example, through the new Expeditions in Education initiative.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NOAA's fiscal year 2013 budget plan will eliminate funding for the National Undersea Research Program (NURP), the National Estuarine Research Reserve Construction program, the Marine Sanctuaries Construction, the John H. Prescott Marine Mammal Rescue Assistance Grant Program, Ocean Education Partnerships, and Competitive Education Grants.

Additionally, NOAA's 2013 budget plan will drastically reduce funding for other extramural programs, including the Integrated Ocean Observing System, the Coast-

al Services Center, the Center for Sponsored Coastal Ocean Research, and the National Estuarine Research Reserve program. All of these programs directly connect the NOAA mission to coastal communities, to jobs, schools, recreation and other important values. They also connect communities back to NOAA, helping to ensure that NOAA is responding to real needs.

In the past, NOAA has benefited enormously from its extramural partnerships, engaging hundreds of scientists and other agencies (e.g., NSF) in issues of direct and critical relevance to the Nation, at remarkably low cost. The extramural programs have been dollars well spent. In 2004 the NOAA Science Advisory Board's Research Review Team report concluded:

"... Extramural research is critical to accomplishing NOAA's mission. NOAA benefits from extramural research in many ways, including: access to world class expertise not found in NOAA laboratories; connectivity with planning and conduct of global science; means to leverage external funding sources; facilitate multi-institution cooperation; access to vast and unique research facilities; and access to graduate and undergraduate students. Academic scientists also benefit from working with NOAA, in part by learning to make their research more directly relevant to management and policy. It is an important two-way street ... NOAA cannot accomplish its goals without the extramural community, specifically the universities and institutions that represent the broad range of expertise and resources across the physical, biological, and social sciences. Moreover, there is the important issue of maintaining a scientific and technologically competent workforce in NOAA and the workforce is another 'product' of the extramural research community ... Also it is important that during difficult budget periods that NOAA not disproportionately target the extramural research for budget cuts."

NAML fully recognizes the constraints facing the Federal Government and the Congress and the necessary limitations on Federal discretionary spending. For that very reason, NAML believes that extramural programs should be supported to the maximum extent. External programs are flexible, responsive to local and regional needs, and can leverage local and regional investments, as well as funds from other agency investments. They are often at the cutting edge, supporting innovation and nurturing the scientists of the future. These advantages are enhanced in programs for which peer-reviewed competition and overall merit determine the funding decisions.

Through engagement with the extramural research community and the agencies that support it, NOAA can enhance its research priorities and address the Nation's critical scientific problems. The place-based extramural programs also contribute to local and regional economic development and engage citizens in wise use of their coastal and ocean resources. Finally, extramural research helps educate and train the next generation of marine scientists and engineers, expanding the impact of the Federal dollars toward building a globally competitive science, technology, engineering, and math workforce.

As the Federal agency responsible for managing living marine and coastal resources, NOAA must have a presence beneath the sea to better understand the systems under its management. With Public Law 111-11, the Congress authorized NURP to provide NOAA with enhanced scientific access to the undersea environment. NURP has cost-effectively provided human access with submersibles and technical diving, and virtual access using robots, seafloor observatories, and innovative new technologies. NURP has provided scientists with the tools and expertise they need to investigate the seafloor and water column, allowing for unique new insights and data to address NOAA's diverse mission. NURP is comprised of a network of regional centers and institutes of undersea science and technology excellence located at major universities. This extramural network facilitates collaborations with programs outside NOAA, leverages external funds and infrastructure, and provides access to world-class expertise and students. NURP projects are selected by a rigorous peer-review process based on scientific merit and relevance to NOAA and national research priorities.

The John H. Prescott Marine Mammal Rescue Assistance Grant Program has also been eliminated from NOAA's fiscal year 2013 Federal budget request. Marine mammals are sentinel species that inform our knowledge of the health of marine food webs. Marine mammal stranding response networks nationwide are run primarily through nonprofits and other nongovernment entities including, in many cases, marine labs affiliated with educational institutions. They coordinate their work with NOAA's National Marine Fisheries Service (NMFS) and often engage large numbers of volunteers and students, making the program very cost effective. Consistent funding is necessary to maintain basic operational needs, volunteer engagement, and the continued success of these essential stranding networks. In addi-

tion to support for the stranding networks, NMFS reserves a portion of Prescott funds for emergency responses to catastrophic events, including oil spills, mass strandings, and hurricanes.

Stranding networks are the Nation's first responders to both live and dead marine mammals that come ashore, often in developed coastal communities. They perform important outreach functions for NOAA and collect data and samples that enable important population and ocean health assessment. This includes basic information on marine mammal diseases that are anthropogenic in nature, as well as those that can be spread to humans via contact with stranded animals. If NOAA is permitted to eliminate this program, it is unlikely that NMFS will be able to meet congressional mandates stipulated in the Marine Mammal Protection Act.

To demonstrate the economic and environmental value of extramural programs to the Nation, consider the National Sea Grant College Program, a stellar example of NOAA's ability to support extramural research that is locally and nationally prominent. In the last 2 years, Sea Grant has delivered the following benefits to the Nation:

- Nearly \$243 million in direct economic benefits, which represents nearly a 4 to 1 return on the Federal investment;
- An estimated additional \$146 million in other Federal, State, and nongovernmental resources leveraged for research, extension, and other services that support the ocean and coastal enterprise;
- 144 new businesses created, 1,271 businesses retained, and more than 8,100 jobs created or retained;
- 768 communities across the Nation adopted more sustainable economic or environmental development practices and policies;
- 340 communities adopted hazard resiliency practices to make them better prepared to cope with or respond to hazardous coastal events;
- 5,000 individuals or businesses received new certifications in hazard analysis and critical control point handling of seafood products, improving the safety of seafood consumption by Americans across the country;
- 40,000 acres of degraded ecosystems were restored; and
- 1,700 undergraduate students, 1,400 graduate students, and 800,000 K–12 students were reached with information about marine and Great Lakes science and resources.

Besides the programs singled out in this presentation, a great deal of extramural research that supports NOAA's overall mission is in specific programs such as the Integrated Ocean Observing System (IOOS), the Coastal Services Center, the Center for Sponsored Coastal Ocean Research (CSCOR), and the National Estuarine Research Reserve System (NERRS) program. For instance, CSCOR is a multi-topic competitive research program that supports longer-term research on important coastal issues of harmful algal blooms, hypoxia in the northern Gulf of Mexico and other U.S. waters, and multiple stressors. The NERRS programs are effectively aligned with academic institutions and especially marine labs, and they support significant research activities funded by other agencies. The IOOS has observing instrumentation in the water around the United States (and including the Gulf of Mexico) that currently provides real-time oceanographic data to users, including the U.S. Coast Guard, maritime transportation, oil spill response agencies (State and Federal), and fisheries managers, as well as local fishing and other businesses. Much of the data comes from academic scientists at no cost to the Federal budget. In all, these extramural programs provide NOAA with capabilities that far exceed what is possible in-house, enabling the agency to carry out its mission more effectively and more efficiently.

The examples above demonstrate the unique value, cost effectiveness, and contribution that extramural programs make to the agency's missions of science, service and stewardship. And last, but by no means least, NOAA extramural funding for colleges and universities fosters the integration of education and training into research, helping to create the next generation of scientific and technical talent that the Nation must have to remain competitive into the future.

We urge the subcommittee to restore funding to these extramural programs when the subcommittee marks up the fiscal year 2013 Commerce, Justice, Science, and related agencies appropriations bill.

On behalf of my colleagues at NAML, thank you very much for the opportunity to express our concerns. We would be happy to provide additional information if it would be helpful to the subcommittee.

PREPARED STATEMENT OF ASME TECHNICAL COMMUNITIES' NASA TASK FORCE

INTRODUCTION TO AMERICAN SOCIETY OF MECHANICAL ENGINEERS AND THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION TASK FORCE

The National Aeronautics and Space Administration (NASA) Task Force of the American Society of Mechanical Engineers (ASME) Knowledge and Community Aerospace Division is pleased to have the opportunity to provide its views on the fiscal year 2013 budget request for NASA. ASME is a nonprofit, worldwide engineering society serving a membership of more than 120,000 people. It conducts one of the world's largest technical publishing operations, holds more than 30 technical conferences and 200 professional development courses each year, and sets many industrial and manufacturing standards. The Aerospace Division represents approximately 15,000 members from industry, academia, and government. Aerospace Division members are involved in all aspects of aeronautical and aerospace engineering at all levels of responsibility. They have a long-standing interest and expertise in the Nation's federally funded aeronautics, exploration, space operations, and aerospace research and development (R&D) activities at NASA, and the agency's efforts to create a pipeline of young engineers interested in aerospace and aeronautics. In this statement, the Task Force will address programs that are critical to the long-term health of the Nation's aerospace workforce and the global economic competitiveness of the U.S. aerospace industry.

Key recommendations for fiscal year 2013:

- The Aerospace Division is concerned about proposed flat and reduced funding for key research and education accounts within NASA. Flat funding amounts to effective reductions in funding when adjusted for inflation and would have a particularly negative effect on NASA's aeronautics research programs. NASA's R&D and educational activities will require sustained increases in funding in order to maintain and enhance space exploration outcomes and competitiveness in the U.S. aeronautics industry and workforce against emerging countries entering space exploration.
- The Task Force highly recommends that the Congress and the administration work to increase the aeronautics portion of NASA's research budget to maintain funding and activities for aeronautics research at the fiscal year 2012 level of \$569.4 million. Achieving this goal will help maintain the research programs needed to support and maintain a world-class aeronautics and aerospace industry and globally competitive research workforce.

NATIONAL AERONAUTICS RESEARCH AND DEVELOPMENT POLICY AND PLAN

The National Science and Technology Council (NSTC) released their "National Aeronautics Research and Development Policy" in December 2006, to establish long-term goals for U.S. aeronautics R&D endeavors. The NSTC followed this policy with a "National Aeronautics Research and Development Plan," updated by the Obama administration in 2010. This plan noted the continued importance of aeronautics R&D to U.S. national security and global economic competitiveness. These policy documents recognize the necessity for Federal leadership in advanced R&D and emphasize the Federal role in advanced aircraft technologies and systems research but also call for private sector contributions in identifying and applying technological innovations. However, these policies alone cannot provide the necessary gains in aeronautics technology without the proper amount of funding and the sustained commitment on the part of the administration and the Congress.

OVERVIEW OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION'S FISCAL YEAR 2013 BUDGET REQUEST

The Task Force recognizes the unprecedented fiscal challenges our country faces and supports the administration's strategy of promoting fiscal discipline in a smart way—strategically cutting programs where possible and investing in programs which improve our long-term economic competitiveness. In accordance with the terms of the NASA Authorization Act of 2010 (Public Law 111-267), the administration is continuing the implementation of significant changes to NASA's programming in fiscal year 2013, including the continuation of a series of new exploration, R&D, and technology demonstration programs and several programs geared towards partnerships between NASA Centers and commercial sector aeronautics and aerospace companies.

The administration's overall budget request of \$17.7 billion for NASA in fiscal year 2013, compared to \$17.77 billion in fiscal year 2012, is significant considering the current fiscal environment, but the Task Force has severe reservations about

the administration's proposed budget freeze at this reduced level over the next 5 fiscal years, through fiscal year 2017.

NASA is already struggling to support several new research and technology initiatives needed to serve the Nation's long-term space exploration needs. Constrained research funding will force NASA to abandon worthy research endeavors, including proven and promising research programs and technology development efforts such as NASA's Mars science programs. Due to recurrent under-funding of NASA's research and development focused directorates over the last several years, NASA became an agency focused on operations and execution to the detriment of its concurrent mission to develop and research the aeronautics and aerospace platforms of tomorrow. Given the challenges faced by NASA as it transitions to new mandates from the Congress—mandates which assume significant out-year budget growth—and the current challenges faced by the broader U.S. aeronautics industry and aeronautics workforce, the Task Force urges the administration to reassert its commitment to revitalizing research and development at NASA, particularly through proposals to engage U.S. industry in a variety of new space technology development and demonstration programs in NASA's new "Space Technology" budget portfolio.

NASA's "Space Technology" development proposal reflects one of the most important recommendations from the Review of U.S. Human Space Flight Plans Committee, also known as the "Augustine Committee", that is, the revitalization of NASA's innovative space technology development efforts. The U.S. record on space exploration stands among the greatest achievements of humankind and one of our greatest achievements as a Nation, and maintaining this mission is critical to U.S. leadership in space.

At a time when America faces unprecedented challenges to its economic leadership, NASA must continue to play a leading role in funding engineering-related research, particularly for aeronautics and aerospace programs, if we are to continue our leadership in activities ranging from commercial aeronautics and aerospace activities to national space exploration priorities. Therefore, the Task Force views the administration's notional freeze on NASA's budget as detrimental to encouraging new research and technology demonstration programs critical to placing NASA and the U.S. aeronautics and aerospace industries back on course to developing space exploration programs which are truly "worthy of a great Nation".

NEED TO EXPAND AERONAUTICS RESEARCH

The Task Force has consistently noted the value of NASA's aeronautics research and technology (R&T) programs contained within the Aeronautics Research Mission Directorate (ARMD). This portion of the NASA budget offers immediate and practical benefits for the Nation, and the Task Force is concerned about the administration's proposed \$551.5 million budget for ARMD in fiscal year 2013, a -3.1-percent decrease from fiscal year 2012. In light of this reduced funding path, the administration's out-year budget plan for ARMD will be insufficient to support the development of important aeronautics research missions if ARMD is to ramp up work on its Integrated Systems Research Program (ISRP), and also force NASA to abandon much of its hypersonic aviation research efforts.

Aeronautic products represent our greatest single national export. These exports are now being threatened by foreign competition whose governments are largely supportive of their aeronautics enterprises. This represents not only a commercial threat, but a potential threat to our national security as well. Strong investment in fundamental engineering research in aeronautics will ensure that the United States will retain its long-term leadership in this field.

NASA's proposed investment in aeronautics research for fiscal year 2013 represents less than 1 percent of the more than \$53.7 billion in net U.S. exports of aeronautics products in 2011. The Task Force recommends that the aeronautics portion of the NASA budget be increased to \$1 billion over the next 5 years, with a long-term target of attaining a level of 10 percent of the total NASA budget. Achieving this target would re-establish aeronautics funding, as a percentage of the NASA budget at its pre-1990 level, and put U.S. aeronautics R&D funding at levels commensurate with the needs of a world-class aeronautics and aerospace industry.

An increase in R&D funding for Aeronautics could provide immediate and strategic benefits to the U.S. economy. More funding will allow rapid improvements in fuel economy and noise abatement technology development through full-scale or sub-scale flight demonstrations that speed transition of these technologies into production aircraft, and leverage current Aeronautics investments in environmentally responsible aviation technologies. Strategically, more R&D funding could allow the ARMD to take a greater role in Next Gen technology development for air traffic control, and to possibly take a lead role in the National Airspace System, leading the

way to safely flying unmanned vehicles in our national airspace and maintaining U.S. leadership in this critical technology.

U.S. AERONAUTICS AND AEROSPACE WORKFORCE

Several interrelated critical challenges confront the U.S. aeronautics enterprise—a sharp decrease in the number of new commercial and military aircraft programs, a decline in the quality of the research infrastructure, and erosion in the technologically literate workforce needed to ensure pre-eminence in an increasingly competitive marketplace. Robust investment by NASA in aeronautics research and space technology development addresses all these problems and will help balance NASA's portfolio to reflect the importance of aeronautics and aerospace to the global economy.

Aeronautics faces the same pressures being felt by the space industries, where fewer research dollars over time has resulted in fewer companies with skilled workers capable of designing and building complex aeronautical systems. As result, the United States is increasingly dependent on immigration and outsourcing to meet its technical workforce needs. In fact, the NSF's 2012 S&T Indicators report found that more than 50 percent of doctorate-level engineers working in the U.S. engineering fields, including aeronautical and aerospace engineering, came from foreign backgrounds, an increase from 41 percent in 2000. Investment in aeronautics is a matter of strategic importance, as it creates highly skilled manufacturing jobs and helps create a foundation for a strong national defense. Additionally, the same report found that both the number and percentage of science and engineering doctoral degree recipients with temporary visas reporting plans to stay in the United States peaked in 2007 and declined in 2009 after rising since 2002, indicating that the United States cannot take its scientific workforce for granted during tough economic times.

While regional economies differ, the aerospace industry overall suffers from a lack of available young workers with advanced technology degrees who can step in to replace retiring, experienced workers. The aerospace industry looks to NASA to create a demand for long-term R&D to encourage students to go to graduate school and on to companies who are doing aeronautical R&D. There is a clear correlation between research dollars and the number of graduate students in a particular field. Therefore, as the funding for aeronautics has decreased by more than one-half over the last decade, the number of younger faculty and graduate students decreased. There is a lag between funding increases and student enrollment increases, and this decade-long erosion must begin to be reversed now. Accordingly, the Task Force reiterates its support for a revitalization of aeronautics and aerospace research and development efforts at NASA.

RECOMMENDATIONS CONCERNING INTERNATIONAL TRAFFIC IN ARMS REGULATION-RESTRICTED RESEARCH

The Task Force again recommends that NASA receive increased funding for research programs conducted through academic partnerships, and recommends maintaining NASA's education budget at a minimum fiscal year 2012 level of \$136 million. In this context, the Congress should consider having a broad range of technologies reviewed and declared non-International Traffic in Arms Regulation (ITAR) restricted in order to reduce costs and barriers to performing research in academic laboratories.

While basic research does not face ITAR restrictions, many applied and advanced categories of research on space-related technologies face significant barriers for foreign nationals at academic institutions. At present almost all space launch technologies are ITAR restricted, eliminating the possibility for many foreign students to participate in the research at many universities. Recognizing that many aerospace companies perform restricted work and need to hire legal residents or U.S. citizens, the Task Force recommends that a process be established to screen new foreign engineering students and start the green card process and path to citizenship as a part of their student employment through U.S. taxpayer-funded grants working on technology in the aerospace and astronautics fields. This would restrict funding to individuals that would later be eligible for employment in the United States after conclusion of their Ph.D., allowing for easier entry into the U.S. aeronautics workforce. This would also reduce the cost to small business hiring new non-U.S. graduates and streamline the U.S. aeronautics workforce development pipeline.

CONCLUSION

Our Nation is facing an ongoing struggle in two areas that are interrelated, which are:

- declining technical workforce; and
- foreign competition for aeronautics and space exploration leadership.

We believe one element of the solution to both problems is investment in aeronautics research and development. There is a strong correlation between technical degrees being awarded and consistent funding for research and development. NASA can help its own workforce problems as well as some of the same problems facing the rest of the country by increasing, in a persistent fashion, research in aeronautics. This in turn would have a positive effect on the U.S. economy in the long run by enabling our country to better compete in the future global marketplace.

The administration's proposed NASA budget for fiscal year 2013 indicates an overall philosophical commitment to revitalizing space technology R&D efforts, which the Task Force fully supports. However, a strong aeronautics R&D program is also essential for the national necessity of retaining a U.S. world-class aeronautics workforce and the administration's 5-year (fiscal year 2013–fiscal year 2017) funding freeze for NASA is incongruent with the administration's overall goal of spurring a revitalization of R&D at NASA and in the U.S. aeronautics industry. Aeronautics is a vital industry that produces tangible economic and security benefits for the nation. NASA's charter for aeronautics and space means that it must address both. Therefore, the Task Force reiterates its support for an expansion in NASA's overall ARMD's budget portfolio to ensure support for existing long-term aviation research and infrastructure goals as well as the development of new space technology R&D capabilities.

As other nations seek to expand their efforts in aeronautics and space exploration, there is a strong rationale for the Congress to consider real increases to the NASA aeronautics and space technology budgets. The Congress must help the United States remain competitive and innovative in this vital area by providing adequate funds and consistent support for NASA's missions. Furthermore, NASA's aeronautics budget should reflect the priorities laid out in the NSTC National Aeronautics Research and Development Policy, which supports stable and long-term foundational research. Only a robust aeronautics budget will meet this goal. The –3.1-percent decrease in NASA's aeronautics budget is a step in the wrong direction. The United States must maintain and expand its investments in scientific research to ensure continued U.S. leadership in space exploration and aeronautics and aerospace technological development.

This testimony represents the considered judgment of the NASA Task Force of the Aerospace Division of ASME's Technical Communities of the Knowledge and Communities Sector and is not necessarily a position of ASME as a whole.

PREPARED STATEMENT OF THE NATIONAL ECOLOGICAL OBSERVATORY NETWORK, INC.

Chairman Mikulski, Ranking Member Hutchison, and members of the subcommittee, thank you for the opportunity to testify on the fiscal year 2013 budget for the National Science Foundation (NSF). My name is Tom Jorling, and I serve as the interim CEO of the National Ecological Observatory Network (NEON), Inc. a 501(c)(3) corporation established to implement the NEON Project supported by the Major Research Equipment and Facilities Construction (MREFC) program of the NSF. We are deeply appreciative of the support this subcommittee has provided the MREFC account, and NEON in particular, in previous years and hope it will continue as you consider the fiscal year 2013 budget request for the NSF MREFC account in the amount of \$196.17 million. This funding recommendation is essentially level with the fiscal year 2012 appropriation for this account and will allow the continued construction of NEON consistent with the 5-year construction schedule developed by the NSF and NEON, Inc. and approved by the National Science Board.

THE CHALLENGE

Maintaining this Nation's Science and Engineering (S&E) leadership is increasingly seen as a precondition for maintaining U.S. competitiveness on the world stage. In February 2003, the National Science Board said:

There can be no doubt that a modern and effective research infrastructure is critical to maintaining U.S. leadership in Science and Engineering (S&E). New tools have opened vast research frontiers and fueled technological innovation in fields such as biotechnology, nanotechnology, and communications . . . Recent concepts of infrastructure are expanding to include distributed systems of hardware, software, information bases, and automated aids for data analysis and interpretation. Enabled by information technology, a qualitatively different and new S&E infrastructure has evolved, delivering greater computational power, increased access, dis-

tribution and shared use, and new research tools, such as data analysis and interpretation aids, Web-accessible databases, archives, and collaboratories. Many viable research questions can be answered only through the use of new generations of these powerful tools.

. . . In an era of fast-paced discovery, it is imperative that NSF's infrastructure investments provide the maximum benefit to the entire S&E community. NSF must be prepared to assume a greater S&E infrastructure role for the benefit of the Nation.

Pushing the frontiers of science requires a sustained effort to ascertain the scientific grand challenges that beckon our brightest minds, to determine how science and technology can best address emerging challenges, and to develop the leadership in turning knowledge into technologies and benefits for society. In order to conduct basic research in every field of S&E, students, teachers, and researchers must have access to powerful, state-of-the-art scientific infrastructure—the type of infrastructure that has a major impact on broad segments of S&E disciplines. Large and up-to-date research equipment and facilities are essential to the fundamental process of basic research.

We are entering an era of large-scale, interdisciplinary science fueled by large data sets that will be analyzed by current and future generations of scientists. The rapid pace of changes around the globe has underscored the value of long-term data sets for understanding the context of scientific observations, and for forecasting future conditions. Natural and human-managed landscapes are subject to events and processes that play out over different scales of time and space. Some are rapid and visible, like extreme precipitation, wind, and wildfire events, while others are subtle and play out over decades, like changing ocean temperatures and pH that affect the world's fisheries. Dealing with these challenges calls for a new generation of tools and observational capabilities.

RIISING TO THE CHALLENGE

There is no better generation to handle these long-term challenges than the cadre of early career scientists, engineers, and educators that we have in this country. These individuals have trained for professional and academic careers in a highly connected, fast-changing, digital world. Many are eager and ready to tackle data-intensive, data-driven scientific challenges if provided the opportunity and the requisite data. We need modern scientific tools that will allow this generation of scientists to listen to the heartbeat of an entire continental ecosystem, to observe the changing patterns of large-scale oceanic patterns that affect our weather, and to use powerful scientific analysis and visualization techniques to understand the connectivity between the atmosphere, land, and oceans.

The successful nurturing of these capabilities depends on the availability and accessibility of data characterizing the structure and function of natural systems. Publicly accessible data represents a potent democratization of science—it opens up the marketplace of ideas and enables participation by constituencies that were previously excluded because of barriers related to the capital costs of scientific infrastructure. The MREFC account funds transformational scientific infrastructure entirely consistent with NSF's vision of science entering into an "Era of Observations" and an "Era of Data and Information".

THE MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION ACCOUNT

NSF describes the NSF MREFC account as providing "unique, transformational research capabilities at the frontiers of science and engineering". Such multi-user facilities are identified through extended engagements with the scientific community, designed using processes that National Aeronautics and Space Administration, Department of Energy, and others have developed over decades, and constructed using state-of-the-art technology. As members of this subcommittee are aware, the Congress, the NSF Inspector General, the National Science Board, and NSF provide stringent oversight of the planning, construction, and operations of all MREFC projects to ensure that taxpayer dollars are spent wisely.

We would like to applaud NSF's stewardship of these facilities. The agency has defined processes that it requires all MREFC projects, including NEON, to follow. These defined processes and an expectation of the timeframes allow us to engage with our user-communities to prepare them for the use of the facility as it gets built, and for when it comes on-line. This allows universities to strategize their hiring strategies, and for our early career scientists to acquire the necessary skills that will allow them to participate in these new scientific enterprises. One such enterprise that we wish to highlight in this testimony is NEON.

WHY THE NATIONAL ECOLOGICAL OBSERVATORY NETWORK, INC.

Living systems interact with each other and with the rest of the Earth System at many scales. At a small scale, individual plants exchange energy and matter with the atmosphere to support growth. At a large scale, like that of an entire continent, exchange between biotic components, the atmosphere, and surface water affects climate and hydrology. NEON is the Nation's and the world's first science facility designed to enable understanding and predicting the way ecosystems work and respond to changes, especially at large scales; understanding how ecosystem processes feedback to alter Earth system processes, including climate and hydrology; and understanding the implications of these processes and feedbacks for the human endeavor.

The project is designed to fill a void in observing systems that collect the range of variables needed for a complete view of ecosystem responses to multiple interacting environmental stressors, essential if we are to maintain the ecosystems that support humans and all life.

The concept for the ecological observatory was initiated in 1998 by the National Science Board's Task Force on the Environment. This was followed by workshops conducted by a large segment of the ecological community and a succession of competitive planning grants from NSF. This process culminated in a proposal to construct what was to become the NEON project. There followed a multi-year process involving more than a dozen outside expert review panels convened by NSF, including a Conceptual Design Review, Preliminary Design Reviews and a Final Design Review in 2010. These successful reviews led to approval by the National Science Board and finally authorization for construction from the Congress in 2010 as part of the MREFC program of NSF.

THE NATIONAL ECOLOGICAL OBSERVATORY NETWORK, INC. IN THE FISCAL YEAR 2013
BUDGET REQUEST TO THE CONGRESS

The total NSF MREFC request for NEON for fiscal year 2013 is \$91 million. This level of funding would support continuation of civil and facility construction and instrumentation deployment across six geographical regions, and commissioning of the infrastructure in three others. Biological sampling and analysis activities will commence in all constructed and accepted Observatory sites. The funds will also support continuation of the NEON cyberinfrastructure in preparation for serving the freely accessible data to the scientific community. The first NEON airborne remote sensing platform is expected to be completed, fully instrumented, and flight-tested in preparation for delivery to Observatory operations in fiscal year 2014.

The NEON project received its first funding from the MREFC program, \$12.58 million in fiscal year 2011 and \$60.3 million in fiscal year 2012. The National Science Board approved plan for the full construction of the Observatory calls for \$98.2 million in fiscal year 2014, \$91 million in fiscal year 2015, and \$80.66 million more than fiscal year 2016. The National Science Board approved total cost for the construction of the Observatory is \$433 million.

SUMMARY

We strongly support the fiscal year 2013 appropriations request for the MREFC account, including the request for NEON, because the cutting edge infrastructure is an essential component of the national effort to keep U.S. scientific enterprise at the leading edge. This is vital for advancing science and maintaining the United States as the leader in understanding the natural world and all the benefits that can flow from that understanding. Long-term observational data generated by MREFC facilities will open up new opportunities for innovation and discovery that will benefit scores of scientists, engineers, and educators by lowering barriers to participation at the very edges of science. We appreciate the constraints within the budget process, but urge the subcommittee to consider the NSF investment in major research equipment and related facilities construction as a critical investment in the future health and well being of the research enterprise—an enterprise that will fuel this Nation's long-term economic competitiveness.

Thank you for this opportunity to present these views.

PREPARED STATEMENT OF THE NATIONAL ESTUARINE RESEARCH RESERVE
ASSOCIATION

The National Estuarine Research Reserve Association (NERRA) is a not-for-profit scientific and educational organization dedicated to the protection, understanding, and science-based management of our Nation's estuaries and coasts. Our members

are the 28 reserves that make up the National Estuarine Research Reserve System (NERRS). Established in 1987, NERRA facilitates its members' mission to protect our Nation's estuaries and to promote conservation-based research, education, and stewardship through the reserves. For fiscal year 2013, NERRA strongly recommends the following reserve system programs and funding levels within the National Oceanic and Atmospheric Administration (NOAA):

- NERRS Operations—\$22.3 million; and

- NERRS Procurement, Acquisition, and Construction (PAC)—\$1.69 million.

Additionally, NERRA also requests appropriation language directing NOAA to ensure that every reserve will get no less than the fiscal year 2012 allocation. This will enable all reserves to meet obligations for core operations associated with research, education, stewardship, and coastal training responsibilities.

In 28 beautiful coastal locations around our country, 22 States and Puerto Rico have protected—in perpetuity—more than 1.3 million acres of land for education, long-term research, science-based stewardship, recreation, and sustainability of the coastal economy. The States have been entrusted to operate and manage NOAA's program as created by the Congress in the Coastal Zone Management Act (CZMA) nearly 40 years ago. What sets this program apart from other place-based Federal programs, like the National Marine Sanctuaries or National Wildlife Refuges for example, is that the reserves manage a Federal partnership program, implemented locally by States or universities.

The reserves have a tremendous positive impact on our economy including work to maintain clean water, keep the seafood and fishing industry viable, and provide communities with practical help and science-based information to address coastal hazards and maintain the area's tourism. Estuaries, where rivers meet the sea, provide nursery ground for two-thirds of commercial fish and shellfish: in NERRS States, the shellfish (wholesale market value) and seafood industry (total sales generated by the seafood industry) contributed more than \$2.7 billion to the economy in 2010 (SOURCE.—National Ocean Economic Program and NOAA Fisheries, Office of Science and Technology). Protection of these important estuaries within the NERRS can have a significant impact on specific species. For example, in Florida, Apalachicola Reserve is 1 of 3 reserves in the State: approximately 90 percent of Florida's oyster harvest and 10 percent of United States total harvest comes from Apalachicola Bay (Source.—Wilber, 92).

The work at each reserve goes beyond its property boundaries and creates a number of environmental and economic benefits for the communities and regions where they exist. For example, in 2010, NERRS coastal counties provided 4.4 percent of total wages earned in the United States and 4.2 percent of the Nation's jobs contributing more than \$26 billion in economic output (measured in gross State product) and supporting more than 468,000 jobs in ocean-dependent industries (SOURCE.—Bureau of Labor Statistics; NOAA).

About NERRS

Since 1974, beginning with the designation of the South Slough National Estuarine Research Reserve in Oregon, the coastal States and the Federal Government have collaborated to create a unique network of estuarine areas protected for long-term research and education. The NERRS added its 28th reserve on Lake Superior, Wisconsin in October 2010.

Pursuant to the CZMA, each reserve is chosen because it is a representative estuarine ecosystem able to contribute to the biogeographical and typological balance of the NERRS and because the area within the reserve is protected in perpetuity and is available for suitable public purposes such as education and interpretive use. The reserves are a network of protected areas established for long-term research, education, training, and stewardship.

The NERRS's priorities are developed through a collaborative approach between the States and NOAA to address both national and local concerns. The reserves have a mandate pursuant to section 315 of the CZMA to support the coastal States through research and education as the States address today's most pressing coastal issues such as impacts from changes in sea and lake levels and increased nutrient loading. The reserves conduct research, monitoring, restoration, education, and training designed to improve our understanding and management of coasts and estuaries. The reserves are public places that have significant local, regional, and national benefits because the lands are publicly owned and function as living laboratories and classrooms that are used by scientists, decisionmakers, educators, and people of all ages. They are located in pristine coastal areas that serve as "sentinel sites", places where early indicators of environmental change are scientifically measured to provide up-to-date information to local officials and the public to support en-

vironmental decisionmaking, and inform assessment of trends at the regional and national levels.

NERRS Operations

NERRA requests that program operations be funded at a level of \$22.3 million, an amount level with Congressional Appropriations Act fiscal year 2012 level. This funding will be shared by the 28 programs to enable the NERRS to manage and maintain healthy estuaries. Healthy estuaries support fishing, seafood, ecotourism, recreation, clean water, and communities. Beyond the economic impact to our National, State, and local economies, reserves have national infrastructure that support bringing science to the management of our coasts. This was most recently evidenced in the Deep Water Horizon oil spill of 2010, a coastal area that is home to five reserves. We know that the \$1 billion tourism and seafood industries depend upon on clean water, and during the Deep Water Horizon Oil Spill crisis the communities and industries along the gulf coast relied on disaster support efforts including data supplied by some of the five gulf coast National Estuarine Research Reserves, some of which continues today.

Each reserve receives operation funds from NOAA that are matched by the States and that are used to leverage significantly more private and local investments that results in each reserve having on average more than five program partners assisting to implement this national program. In addition, the program significantly benefits from volunteers that are engaged in habitat restoration, education and science which offset operation costs at reserves by donating thousands of hours. Between fiscal year 2006 and fiscal year 2010, volunteers have contributed more than 460,400 hours to the NERRS. In fiscal year 2010 volunteers contributed more than 100,000 hours to the NERRS (SOURCE.—NOAA).

NERRS have made countless economic contributions to their local communities, States, and Nation. In the category of eco-tourism, more than 2 million people annually visit the NERRS: an estimated more than \$20 million annually in direct benefit from these visitor use opportunities (estimated using Federal, State, and local park entry fees). Visitors to our reserves walk the trails, paddle the waterways, bird watch, snowshoe, and participate in activities and events at each of our 28 reserves.

In 2011, NERRS contributed more than \$10 million to science and research. One example of this is NERRS water and weather monitoring programs are used at the local, State, and national levels to support assessment of water quality and guide and track remediation strategies, aid in weather and marine forecasts, support emergency response, and aid the water dependent and insurance industries. NERRS land conservation ensures that 1.3 million acres of coastal property worth more than \$6.5 billion are protected. (Estimated based on the average cost of Federal investment per acre of land added to reserves over the last 10 years.)

In addition, NERRS contributes more than \$4.9 million in education relief offsets, educating more than 83,000 children annually through school-based programs grades K–12. This is a major benefit in some communities where local school districts have been forced to cut programs in these economic times. Likewise, NERRS offsets more than \$13.4 million in training for more than 66,000 people. This is a direct benefit of the Coastal Training Program that provides knowledge, tools, and resources to assist communities in protecting our coasts and aiding in sustainable development.

NERRS PAC

NERRA requests \$1.69 million for land conservation and facilities to maintain, upgrade, and construct reserve facilities and acquire priority lands. This competitive funding program is matched by State funds and has resulted in not only the preservation of critical coastal lands as described above, but also in the increase of construction jobs. For example, NERRS creates more than 60 jobs for each \$1 million of Federal PAC money spent. In addition, NERRS leveraged investments of more than \$114 million to purchase 30,000+ acres of coastal property over the last 10 years. A recent assessment of construction and acquisition priorities at the reserves shows that the NERRS have needs for more than \$60 million for fiscal years 2011 through 2015.

President's Fiscal Year 2013 Budget

The President's fiscal year 2013 budget, if enacted, would reduce the NERRS program funding by 15 percent from fiscal year 2012 omnibus bill levels of \$22.259 million to \$18.979 million and would reduce Procurement, Acquisition, and Construction (PAC) funding by 100 percent from fiscal year 2012 omnibus bill levels of \$1.7 million to zero. According to the NOAA "blue book" language, "At this funding level, NOAA will eliminate the NERRS graduate fellowship program and decrease funding to each of the 28 reserves across the United States." As stated previously, NERRA

requests appropriation language directing NOAA to ensure that every reserve will get no less than the fiscal year 2012 allocation. This will enable all reserves to meet obligations for core operations associated with research, education, stewardship, and coastal training responsibilities.

NERRA's assessment of the potential funding cut impacts assumes that program operations in the States, at the 28 sites, would absorb the majority of the program cuts and thereby result in the greatest impacts being felt locally, even though it is believed that all aspects of the program—locally and systemwide—would receive reductions. The States suffer the greatest from the funding cuts. Program cuts proposed by the President would put at risk the more than \$26 billion of economic output contributed by NERRS coastal counties in 2010, as well as the more than more than 468,000 jobs in ocean-dependent industries supported in these communities. Insufficient funding would impact State and local seafood and fishing industries that are a \$2.7 billion economic contributor for States that have a reserve because reserve sites would suffer adverse economic impacts from reduced water quality and water quality data. In addition, NERRA believes that the NERRS program for Graduate Research Fellowships, providing advance degree educational opportunities for up to 56 university marine science-related students per year, will be eliminated.

Support Requested for Coast and Ocean and Management

NERRS are connected to the coast and ocean management work done by its State and Federal partners. Specifically, in the States, reserves primary partners are the State coastal management programs in the majority of the States. NERRA requests subcommittee support for Coastal Zone Management (CZM) grants at \$67 million. In addition, many reserves rely on congressionally appropriated Bay Watershed Estuary Training (B-WET) funds to augment educational funds. Therefore, NERRA request your support for this program in the appropriation of \$9.7 million for B-WET grants. Finally, the reserves depend on NOAA's technical assistance and partnership capacity. NERRA requests support of \$37.1 million for the Coastal Services Center and \$8.7 million for CZM Stewardship.

Conclusion

NERRA greatly appreciates the support the subcommittee has provided in the past. This support has been critical to sustain and increase the economic viability of the coast and estuary-based industries. We urge you to give every consideration to these requests as you move forward in the fiscal year 2013 appropriations process.

PREPARED STATEMENT OF THE NORTHWEST INDIAN FISHERIES COMMISSION

Mr. Chairman and members of the subcommittee, thank you for the opportunity to provide testimony on the Department of Commerce fiscal year 2013 appropriations. My name is Billy Frank, and I am the chairman of the Northwest Indian Fisheries Commission (NWIFC). The NWIFC is comprised of the 20 tribes that are party to the *United States vs. Washington*¹ (*U.S. vs. Washington*). We support funding for National Oceanic and Atmospheric Administration (NOAA)—National Marine Fisheries Service (NMFS) and the National Ocean Service (NOS). We are identifying four specific funding needs:

SUMMARY OF FISCAL YEAR 2013 APPROPRIATIONS REQUEST

NWIFC specific funding requests:

- \$110 million for the Pacific Coastal Salmon Recovery Fund (NOAA/NMFS);
- \$20 million for the Regional Ocean Partnership Grants Program (NOAA/NOS);
- \$3 million for the Pacific Salmon Treaty Chinook Annex (NOAA/NMFS); and
- \$16 million for the Mitchell Act Hatchery Program (NOAA/NMFS).

The NWIFC also supports the budget priorities and funding requests of the National Congress of American Indians.

We also want to bring to your attention an initiative that we have been pursuing—our Treaty Rights at Risk Initiative. The treaty rights of the western Washington treaty tribes are in imminent danger. Specifically, the treaty-reserved right to harvest salmon is at risk. The danger exists due to diminishing salmon populations, which limits or eliminates our right to harvest. All this is due to the inability to restore salmon habitat faster than it is being destroyed. We have called on Federal Government to implement their fiduciary duties by better protecting salmon

¹*United States vs. Washington*, Boldt Decision (1974) reaffirmed Western Washington Tribes' treaty fishing rights.

habitat. The Federal Government has a trust responsibility to the tribes and the tribes' treaties are constitutionally protected. By fulfilling these Federal obligations and implementing our requested changes, I have no doubt that we will recover the salmon populations. It is imperative that we are successful with this initiative as salmon are critical to the tribal cultures, traditions and their economies.

When our tribal ancestors signed treaties, ceding millions of acres of land to the United States Government, they reserved fishing, hunting, and gathering rights in all traditional areas. These constitutionally protected treaties, the Federal trust responsibility and extensive case law, including the *United States vs. Washington* decision (1974), all consistently support the role of tribes as natural resource managers, both on and off reservation. In Washington State, these provisions have developed into a successful co-management process between the Federal, State, and tribal governments. These arrangements have helped us deal with many problems, but still require additional support to meet the many new challenges like air and water pollution and climate change.

Of particular interest to us is the Pacific Coastal Salmon Recovery Fund. This is a critical funding source in restoring salmon habitat. This funding source continues to assist tribes in the implementation of salmon recovery plans and moves us in the direction of achieving the recovery goals, which is a direct request in our Treaty Rights at Risk initiative. We also appreciate a number of the National Ocean Policy initiatives that support key Federal, state and tribal partnerships. Our specific requests are further described below.

Justification of Requests

\$110 Million for the Pacific Coastal Salmon Recovery Fund

The Pacific Coastal Salmon Recovery Fund (PCSRF) is a multi-state, multi-tribe program established by the Congress in fiscal year 2000 with a primary goal to help recover wild salmon throughout the Pacific Northwest and Alaska. The PCSRF seeks to aid the conservation, restoration, and sustainability of Pacific salmon and their habitats by financially supporting and leveraging local and regional efforts. Recognizing the need for flexibility among tribes and the States to respond to salmon recovery priorities in their watersheds, the Congress initially provided funds for salmon habitat restoration, salmon stock enhancement, salmon research, and implementation of the 1999 Pacific Salmon Treaty Agreement between the United States and Canada. PCSRF is making a significant contribution to the recovery of wild salmon throughout the region.

The tribes' overall goal in the PCSRF program is to restore wild salmon populations. The key tribal objective is to protect and restore important habitat that promotes the recovery of Endangered Species Act (ESA) listed species and other salmon populations in Puget Sound and along the Washington coast that are essential for western Washington tribes to exercise their treaty-reserved fishing rights consistent with *U.S. vs. Washington* and *Hoh vs. Baldrige*.² These funds will also support policy and technical capacities within tribal resource management departments to plan, implement, and monitor recovery activities.

It is for these reasons that the tribes strongly support the Pacific Coastal Salmon Recovery Fund. The tribes have used these funds to support the scientific salmon recovery approach that makes this program so unique and important. Related to this scientific approach has been the tribal leadership and effort which has developed and implemented the ESA-listed Puget Sound Chinook Recovery Plan approved by NOAA.

Unfortunately, the PCSRF monies have decreased over the past decade from the fiscal year 2002 amount of \$110 million. Restoration of this line item in fiscal year 2013 to the \$110 million level will support the original intent of the Congress and enable the Federal Government to fulfill its obligations to salmon recovery and the treaty fishing rights of the tribes.

\$20 Million for the Regional Ocean Partnership Grants Program

The Hoh Tribe, Makah Tribe, Quileute Tribe, and the Quinault Indian Nation have deep connections to the marine resources off the coast of Washington. They have pioneered cooperative partnerships with the State of Washington and the Federal Government in an effort to advance the management practices in the coastal waters. However, to have an effective partnership, the tribes, and their partners need additional funding.

The four tribes, the State of Washington and NOAA's NOS, through the Marine Sanctuary Program, have formed the Intergovernmental Policy Council (IPC), which

² *Hoh vs. Baldrige*—A Federal court ruling that required fisheries management on a river-by-river basis.

is intended to strengthen management partnerships through coordination and focus of work efforts. Through this partnership, the entities hope to maximize resource protection and management, while respecting existing jurisdictional and management authorities. In addition to this partnership with the Marine Sanctuary Program, the four tribes have proposed a mechanism by which they can effectively engage with the West Coast Governors' Agreement for Ocean Health to create a regional ocean planning group for the west coast that is representative of the States and sovereign tribal governments with an interest in the ocean.

The four coastal tribes and the State also wish to engage in an ocean monitoring and research initiative to support and transition into an ecosystem-based fisheries management plan for the Washington coast. This tribal-State effort would be in collaboration with NOAA and consistent with regional priorities identified by a regional planning body. Effective management of the ocean ecosystem and its associated resources requires the development of baseline information against which changes can be measured. This initiative will expand on and complement existing physical and biological databases to enhance ecosystem-based management capabilities. In turn, this will support ongoing efforts by the State and tribes to become more actively engaged in the management of offshore fishery resources.

For the tribes to participate in this regional ocean planning body, and for the tribes and State to conduct an ocean monitoring and research initiative off the Washington coast, they will need funding to support this effort. The Regional Ocean Partnership Grants program, within the National Ocean Service Coastal Management account, would be an ideal program to support tribal participation with the West Coast Governors' Agreement to address ocean governance and coastal/marine spatial planning issues.

In addition, the economic value associated with effective marine resource protection is huge. Not only are marine areas crucial for our natural resources and those that use them—they are bridges of commerce between nations and continents. Healthy oceans are essential if we value stable climates that will sustain our economies and our lives. Tribes must be partners in the efforts to research, clean up, and restore the environment in order to deal with identified problems.

\$3 Million for the Pacific Salmon Treaty 2008 Chinook Annex

Adult salmon returning to most western Washington streams migrate through United States and Canadian waters and are harvested by fisherman from both countries. For years, there were no restrictions on the interception of returning salmon by fishermen of neighboring countries.

In 1985, after two decades of discussions, the Pacific Salmon Treaty (PST) was created through the cooperative efforts of tribal, State, United States and Canadian governments, and sport and commercial fishing interests. The Pacific Salmon Commission (PSC) was created by the United States and Canada to implement the treaty, which was updated in 1999, and most recently in 2008.

The 2008 update of the treaty gave additional protection to weak runs of Chinook salmon returning to Puget Sound rivers. The update provides compensation to Alaskan fishermen for lost fishing opportunities, while also funding habitat restoration in the Puget Sound region.

The PSC establishes fishery regimes, develops management recommendations, assesses each country's performance and compliance with the treaty, and is the countries' forum to reach agreement on mutual fisheries issues. As co-managers of the fishery resources in western Washington, tribal participation in implementing the PST is critical to achieve the goals of the treaty to protect, share, and restore salmon resources.

We support the fiscal year 2013 NOAA fisheries budget which includes \$3 million to implement the 2008 Pacific Salmon Treaty Chinook Annex. Specifically, the funds would be used for Coded-Wire-Tag Program Improvements (\$1.5 million) and Puget Sound Critical Stocks Augmentation (\$1.5 million).

\$16 Million for the Mitchell Act Hatchery Program

Salmon produced by the Mitchell Act hatcheries on the lower Columbia River are critically important in that they provide significant harvest opportunities for both Indian and non-Indian fisheries off the coast of Washington. This hatchery production is intended to mitigate for the lost production caused by the hydropower dam system on the Columbia River. This hatchery production is also important in that it dampens the impact of Canadian fisheries under the terms of the PST Chinook Annex on Puget Sound and coastal stocks. This funding provides for the operations of this important hatchery program and is required to mitigate for the Federal hydropower system on the Columbia River.

OUR MESSAGE

We generally support the administration's fiscal year 2013 budget with the changes noted above. The tribes strive to implement their co-management authority and responsibility through cooperative and collaborative relationships with the State and local communities. The work the tribes do benefits all the citizens of the State of Washington, the region, and the Nation. But the increasing challenges I have described and the growing demand for our participation in natural resource/environmental management requires increased investments of time, energy, and funding.

We are sensitive to the budget challenges that the Congress faces. Still, we urge you to increase the allocation and appropriations that can support priority ecosystem management initiatives. For the sake of sustainable health, economies, and the natural heritage of this resource, it is critically important for the Congress and the Federal Government to do even more to coordinate their efforts with State and tribal governments.

CONCLUSION

We are facing many environmental and natural resource management challenges in the Pacific Northwest, caused by human population expansion and urban sprawl, increased pollution problems ranging from storm water runoff to de-oxygenated or "dead" areas in the Hood Canal, parts of Puget Sound and in the Pacific Ocean. The pathway to the future is clear to us. The Federal, State, and tribal governments must strengthen our common bond and move forward with the determination and vigor it will take to preserve our heritage.

Western Washington tribes are leaders in protecting and sustaining our natural resources. The tribes possess the legal authority, technical and policy expertise, and effectively manage programs to confront the challenges that face our region and Nation. The activities and functions we perform also benefit the entire northwest region.

The tribes are strategically located in each of the major watersheds, and no other group of people is more knowledgeable about the natural resources. No one else so deeply depends on the resources for their cultural, spiritual, and economic survival. Tribes seize every opportunity to coordinate with other governments and nongovernmental entities, to avoid duplication, maximize positive impacts, and emphasize the application of ecosystem management. We continue to participate in resource recovery and habitat restoration on an equal level with the State of Washington and the Federal Government because we understand the great value of such cooperation.

Together, we must focus on the needs of our children, with an eye on the lessons of the past. We ask for the Congress to continue to support our efforts to protect and restore our great natural heritage and support our funding requests. Thank you.

 PREPARED STATEMENT OF THE NATIONAL MARINE SANCTUARY FOUNDATION

APPROPRIATIONS REQUEST

For 12 years, the National Marine Sanctuary Foundation (NMSF) has worked with the Congress and the National Oceanic and Atmospheric Administration (NOAA) to connect our fellow citizens to the underwater places that define the American ocean—the National Marine Sanctuary System. The President's budget request for 2013 could jeopardize economic growth in coastal communities by terminating funding for national marine sanctuary vessel acquisition and visitor center construction, including the completion of ongoing projects. NMSF respectfully requests that the subcommittee remedy this situation by appropriating:

- \$5.495 million to the Marine Sanctuaries Construction Base, within NOAA's Procurement, Acquisition, and Construction account (fiscal year 2012 enacted level); and
- \$49 million to the Marine Sanctuary Program Base, within NOAA's Operations, Research, and Facilities account (fiscal year 2010 enacted level).

Joining NMSF in this request is the national network of community-based, non-profit organizations that support specific sites within the sanctuary system. On behalf of their members from coast to coast, the Channel Islands Sanctuary Foundation (California); Cordell Marine Sanctuary Foundation (California); Farallones Marine Sanctuary Association (California); Friends of Thunder Bay National Marine Sanctuary (Michigan); Monterey Bay Sanctuary Foundation (California); Olympic Coast Alliance (Washington); Sanctuary Friends Foundation of the Florida Keys

(Florida); and Stellwagen Alive! (Massachusetts) support funding National Marine Sanctuary System at these levels.

While we recognize the challenges associated with providing increased funding in the current budget climate, and the need to fund other important programs under the jurisdiction of the subcommittee, we believe that the President's fiscal year 2013 budget request fails to address critical sanctuary contributions to coastal job creation and economic growth, from supporting tourism to providing construction jobs. It also continues a deeply disturbing trend of underfunding the sanctuary program—despite nearly a decade's worth of unmistakable signals from Democrats and Republicans in both Houses of Congress that the program warrants additional funds.

NATIONAL MARINE SANCTUARIES ARE ECONOMIC ENGINES FOR COASTAL COMMUNITIES

National marine sanctuaries support economic growth and hundreds of coastal businesses in sanctuary communities; preserve vibrant underwater and maritime treasures for our children and grandchildren to enjoy; and provide critical public access for ocean recreation, research, and education. Investing in these sites does much more than simply protect small areas of the ocean—national marine sanctuaries are economic engines for coastal communities, and investing in sanctuaries is a downpayment on the future of fishing families, dive operators, and whale-watching vendors, not to mention the many other Americans whose livelihoods are dependent on a healthy ocean and coasts. We offer the following examples to suggest that the benefits of funding our national marine sanctuaries far outweigh the Federal outlays that support them:

- Management of the Stellwagen Bank National Marine Sanctuary off Massachusetts costs taxpayers less than \$2 million annually, and healthy sanctuary waters draw the tourists who spent \$126 million on commercial whale-watching trips there during 2008 alone, supporting 31 businesses and almost 600 jobs.¹
- Taxpayers spend less than \$3 million per year to manage the Monterey Bay National Marine Sanctuary off California, whose waters are the focus of a marine science and education industry that employed more than 2,100 people and had a \$291 million budget in 2012.²
- The Florida Keys National Marine Sanctuary, where management costs less than \$6 million per year, protects coral reefs and legal fishing opportunities that are the backbone of a marine tourism and recreation industry in the two adjacent counties—employing more than 70,000 people and contributing \$4.5 billion per year to state GDP.³
- On the shores of Lake Huron, Michigan's Thunder Bay National Marine Sanctuary costs less than \$1 million annually and serves as a destination for tourists who spent \$110 million visiting the three adjacent counties in 2000, providing almost \$36 million in personal income and supporting 1,700 jobs.⁴
- Taken as a whole, the National Marine Sanctuary System manages our waters at a cost to taxpayers of approximately \$340 per square mile, while management of National Park Service properties costs more than \$16,000 per square mile.⁵

Investments in our National Marine Sanctuary System provide incredible returns to society, both today and for future generations, and we encourage the subcommittee to provide additional resources to sanctuaries wherever possible, enabling them to stimulate coastal economies, promote ocean recreation, and create a healthy, long-term balance on the water.

¹O'Connor, Simon et al (2009). Whale Watching Worldwide: tourism numbers, expenditures and expanding economic benefits, a special report from the International Fund for Animal Welfare. Prepared by Economists at Large. Available at http://www.ifaw.org/Publications/Program_Publications/Whales/asset_upload_file841_55365.pdf.

²Monterey Bay Crescent Ocean Research Consortium. (2012) "Major Marine Sciences Facilities in the Monterey Bay Crescent—2012." Available at http://web.me.com/paduan/mbcorc/Membership_Info_files/MontereyBayLabs2012-2.pdf.

³National Ocean Economics Program. (2004) "Ocean Economy Data." Available at <http://www.oceaneconomics.org/Market/ocean/oceanEconResults.asp?IC=N&selState=12&selCounty=12086&selCounty=12087&selYears=All&selSector=6&selIndust=All&selValue=All&cbMultiplier=Multiply&selOut=display&noepID=3204>.

⁴Michigan Sea Grant. (2009). "Northeast Michigan Integrated Assessment Final Report." Available at <http://www.miseagrant.umich.edu/downloads/nemia/report/NEMIA-Final-Report.pdf>.

⁵Office of National Marine Sanctuaries. (2011) "Sanctuary Watch, Summer 2011." U.S. Department of Commerce: NOAA National Ocean Service, National Marine Sanctuary Program. Available at <http://sanctuaries.noaa.gov/news/pdfs/sanctuarywatch/sw0611.pdf>.

NATIONAL MARINE SANCTUARIES START AND STAY IN LOCAL COMMUNITIES

The designation and management of new sanctuaries is wholly dependent on a “bottom-up” process where local communities are involved from very beginning—sanctuaries actually devolve power from Washington, DC and give constituents control over the destiny of their coasts. All sanctuary rules and regulations are developed on a site-by-site basis, and sanctuaries are designed from the outset to accommodate multiple uses of the ocean. Coastal communities have a controlling influence on sanctuary priorities, ensuring that they address unique, local circumstances. This community-driven approach to decide where sanctuaries are located and what is allowed within them is one of the most public in our democracy. National marine sanctuaries are created by and for the people: citizens and communities propose sites and then have at least three additional chances to weigh in during the process. In addition, more than 700 Sanctuary Advisory Council representatives from the fishing, tourism, and maritime commerce industries; Tribes, State, and local government; and researchers, educators, and conservationists spend more than 13,000 hours each year to help manage sanctuary operations day-to-day. Sanctuaries are also hubs for volunteer activity: more than 100,000 hours are contributed by local sanctuary volunteers each year.

NATIONAL MARINE SANCTUARIES’ PROGRAMMATIC OUTLOOK UNDER PROPOSED FISCAL YEAR 2013 FUNDING LEVELS

We remain concerned that NOAA’s Office of National Marine Sanctuaries (ONMS) has not received sufficient appropriations for several consecutive budget cycles. As a result of these shortfalls, a consolidation with NOAA’s Marine Protected Areas Center, and the continued underfunding proposed for fiscal year 2013, we project the termination of contractors who perform full-time equivalent duties; reduced operations at visitor centers; a lack of contingency funding needed in case of emergencies like oil spills; and inoperable vessels tied up at the docks. In addition, lack of funds will likely result in cuts to public access and recreation opportunities, cancellation of partnerships that leverage private funds for taxpayer benefits, and the dismantling of successful education initiatives.

The potential impact of reducing sanctuary appropriations goes far beyond the individual sanctuaries themselves:

- limiting visitor center hours;
- eliminating research programs; and
- diminishing enforcement capacities will prevent ONMS from fulfilling its statutory mandates while also reducing the economic activity and job creation that surrounds healthy sanctuary communities from coast to coast.

For example, funding national marine sanctuaries below the recommended levels could force the program to:

Cut Treasured Public Access and Recreation Opportunities For All Americans.—Funding cuts risk the Florida Keys National Marine Sanctuary’s 767 mooring buoys, which provide public access and recreational opportunities within the sanctuary while protecting coral reefs and shipwrecks from anchor damage, preserving them for future generations.

Restrict Enforcement Operations That Protect Legal Fishermen by Guarding Against Illegal Fishing.—Lack of funding jeopardizes on-water patrols for illegal lobster fishermen in the Florida Keys NMS. In a single 2010 case, illegal fishermen pilfered 8,500 pounds of spiny lobster within a 6-month period. The lobster had a street value of \$155,000—money that was effectively taken out of the pockets of hardworking, legal fishermen.

Dramatically Shrink Visitor Center Hours.—Visitor centers are a vital link between sanctuaries and the millions of Americans who visit the coast each year and serve as the public face of NOAA. Sanctuary visitor centers see more than 200,000 visitors per year, including the Mokupāpapa Discovery Center (Hilo, Hawaii), Great Lakes Maritime Heritage Center (Alpena, Michigan), and Florida Keys EcoDiscovery Center (Key West, Florida).

Eliminate Cooperative Education Efforts With Local Museums That Leverage Private Funds for Taxpayer Benefits.—Placing exhibits in partner institutions, like the California Academy of Sciences’ three-story “California Coast” aquarium, is a successful and cost-effective method for reaching the American public. More than 1 million Academy visitors each year learn how the Gulf of the Farallones National Marine Sanctuary protects America’s valuable ocean and maritime resources.

Cancel Collaborative Research Efforts With Local Universities That Leverage Private Funds for Taxpayer Benefits.—Funding cuts could risk partnerships with Oregon State University, Stanford University, and the University of Cali-

fornia for collection of wind, tide, current, and marine life data critical to maritime commerce and search-and-rescue operations within the Channel Islands, Monterey Bay, Gulf of the Farallones, Cordell Bank, and Olympic Coast National Marine Sanctuaries.

Dismantle Successful Education Initiatives That Save Taxpayers Money by Focusing on Low-Cost Prevention Instead of Expensive Restoration or Remediation.—The Multicultural Education for Resource Issues Threatening Oceans (MERITO) program's media outreach has touched more than 13 million California residents. The California Bay-Watershed Education and Training (B-WET) program increases the stewardship ethic of participating youth, and local communities in the Chesapeake Bay, Gulf of Mexico, Hawaii, New England, and Pacific Northwest have imported the program.

THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NEEDS SUFFICIENT FUNDS TO FULFILL ITS RESPONSIBILITIES TO THE AMERICAN PEOPLE

As a member of the Friends of NOAA coalition, the National Marine Sanctuary Foundation works with other supporters, stakeholders, and partners of NOAA to educate and inform interested audiences about the full range of NOAA activities, enabling the agency to more effectively carry out its responsibilities relating to our ocean and coasts, fisheries, research, and weather and climate, including satellites. NOAA is one of the premier science agencies in the Federal Government and provides decisionmakers with critically important data, products, and services that promote and enhance the Nation's economy, security, environment, and quality of life. More than 1.5 million NOAA weather forecasts and warnings per year generate benefits of at least \$31.5 billion, and the agency's ocean and atmospheric research, fisheries management, and satellite enterprises are essential for the continued prosperity of our Nation.⁶ For example, recovery of overfished stocks has produced an additional \$2.1 billion in income and \$5 billion in sales over the past decade.⁷ Providing insufficient funding for NOAA will only serve to diminish the economic activity and job creation that is at present successfully revitalizing communities across America.

We hope the subcommittee will see the benefits of investing in NOAA and the National Marine Sanctuary System, and that a failure to provide sufficient funding will endanger, quite literally, American lives and livelihoods across the Nation.

PREPARED STATEMENT OF THE NATIONAL NETWORK TO END DOMESTIC VIOLENCE

Introduction

I am testifying to request a targeted investment of \$449.5 million in Violence Against Women Act (VAWA) programs administered by the Department of Justice, (DOJ) Office of Violence Against Women in the fiscal year 2013 budget (specific requests detailed below). In addition, I am testifying to request a \$1 billion "cap" from the Victims of Crime Act (VOCA), administered by the Office of Justice Programs, Office for Victims of Crime in the fiscal year 2013 budget.

Commerce, Justice, Science, and Related Agencies Appropriations Subcommittee Chairwoman Mikulski, Vice Chairman Hutchison, Chairman Inouye, Ranking Member Cochran and distinguished members of the Senate Appropriations Committee, thank you for this opportunity to submit testimony to the subcommittee on the importance of investing in VAWA and VOCA. I sincerely thank the subcommittee for its ongoing support and investment in these lifesaving programs. These investments help to bridge the gap created by an increased demand and a lack of available resources.

I am the president of the National Network to End Domestic Violence (NNEDV), the Nation's leading voice on domestic violence. We represent the 56 State and territorial domestic violence coalitions, including those in Maryland, Texas, Hawaii, and Mississippi, their 2,000-member domestic violence programs, and the millions of victims they serve. Our direct connection with victims and service providers gives us a unique understanding of their needs and the vital importance of continued Federal investments.

⁶Lazo, J.K., D.M. Waldman, B.H. Morrow, and J.A. Thacher. 2010. "Assessment of Household Evacuation Decision Making and the Benefits of Improved Hurricane Forecasting." *Weather and Forecasting*, 25(1):207-219.

⁷National Marine Fisheries Service.

Incidence, Prevalence, Severity, and Consequences of Domestic and Sexual Violence

The crimes of domestic and sexual violence are pervasive, insidious, and life-threatening. Every day in the United States, an average of three women are killed by a current or former intimate partner.¹ In 2005 alone, the most recent year with this data available, 1,181 women were murdered by an intimate partner in the United States.² In Texas, 142 women were killed by their current or former intimate partner in calendar year 2010.³ Recently, the Centers for Disease Control and Prevention (CDC) released the first-ever National Intimate Partner and Sexual Violence Survey (NISVS) which found that domestic violence, sexual violence, and stalking are widespread. In fact, domestic violence alone affects more than 12 million people each year; nearly 1 in 5 women have been raped in their lifetime, and 1 in 4 women have been a victim of severe physical violence by an intimate partner. More than 80 percent of women who were victimized experienced significant short- and long-term impacts related to the violence such as Post-Traumatic Stress Disorder (PTSD), injury (42 percent), and missed time at work or school (28 percent). Finally, NISVS shows that most rape and partner violence is experienced before the age of 24, highlighting the importance of preventing this violence before it occurs.⁴

In addition to the terrible cost domestic violence has on the lives of individual victims and their families, these crimes cost taxpayers and communities. In fact, the cost of intimate partner violence exceeds \$5.8 billion each year, \$4.1 billion of which is for direct medical and mental healthcare services.⁵ Domestic violence costs U.S. employers an estimated \$3 to \$13 billion annually.⁶ Between one-quarter and one-half of domestic violence victims report losing a job, at least in part, due to domestic violence.

Despite this grim reality, we know that when a coordinated response is developed, and immediate, essential services are available, victims can escape from life-threatening violence and begin to rebuild their shattered lives. Funding these programs is fiscally sound, as they save lives, prevent future violence, keep families and communities safe, and save our Nation money.

Investing in VAWA

The Congress first authorized VAWA in 1994 in response to the terrible crimes of domestic violence, sexual assault, dating violence, and stalking. The programs created by VAWA and administered by the DOJ and the Department of Health and Human Services, have changed Federal, tribal, State and local responses to domestic violence dating violence, sexual assault, and stalking. VAWA creates and supports comprehensive, cost-effective responses to these pervasive and insidious crimes and has unquestionably improved the national response to domestic violence, dating violence, sexual assault, and stalking. Due to the overwhelming success of VAWA-funded programs, more and more victims are coming forward for help each year. More victims report domestic violence to the police; reporting rates by women have increased by up to 51 percent and by 37 percent for men.⁷ The rate of nonfatal intimate partner violence against women has decreased by 63 percent.⁸ Remarkably, the number of individuals killed by an intimate partner has decreased by 24 percent for women and 48 percent for men.⁹ In addition to saving and rebuilding lives,

¹Bureau of Justice Statistics (2008). *Homicide Trends in the U.S. from 1976–2005*. Department of Justice.

²Ibid.

³Honoring Texas Victims. Family Violence Fatalities in 2010. Texas Council on Family Violence. Available at <http://www.tcfv.org/pdf/Honoring-Texas-Victims.pdf>.

⁴Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

⁵National Center for Injury Prevention and Control. *Costs of Intimate Partner Violence Against Women in the United States*. Atlanta (GA): Centers for Disease Control and Prevention; 2003.

⁶Bureau of National Affairs Special Rep. No. 32, Violence and Stress: The Work/Family Connection 2 (1990); Joan Zorza, *Women Battering: High Costs and the State of the Law*, Clearinghouse Rev., Vol. 28, No. 4, 383, 385; *Supra*, see footnote 10.

⁷"Intimate Partner Violence in the U.S." U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, Jan 2008.; Cassandra Archer et al., Institute for Law and Justice, National Evaluation of the Grants to Encourage Arrest Policies Program 14 (November 2002).

⁸"Intimate Partner Violence in the U.S." U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, January 2008.

⁹Ibid.

VAWA saved taxpayers \$12.6 billion in net averted social costs in its first 6 years alone.¹⁰

A recent study demonstrates both the lifesaving and cost-effective nature of VAWA-funded programs. The study found that during the 6 months after a survivor obtained a protective order, the number of threats of physical harm or murder decreased nearly 50 percent, moderate physical abuse decreased 61 percent, and severe physical abuse decreased nearly 50 percent. Moreover, protective orders saved Kentucky at least \$85 million in just 1 year.¹¹ Because many VAWA-funded programs can help victims obtain protection orders, this study supports the efficacy of continued investment in these funding streams.

While VAWA programs have made systemic changes to meet the needs of victims and saved countless lives, the demand for services continues to rise. Additionally, many parts of the country still lack basic services and traditionally underserved populations face additional barriers to accessing services. The National Domestic Violence Census found that in just 1 day in 2011, more than 67,000 adults and children found safety in our Nation's domestic violence shelters and programs. On the same day, however, more than 10,500 requests for services went unmet because programs did not have the resources to meet the needs of victims.

In these tough economic times, State and private funding sources are dwindling, while at the same time there are more incidents of violence and more victims seeking help. As programs strive to meet the needs of all victims requesting services, the Federal funding is essential for ensuring that programs can keep their doors open and answer crisis calls. In fact, the National Domestic Violence Census found that in 2010, 1,441 (82 percent) domestic violence programs reported a rise in demand for services, while at the same time, 1,351 (77 percent) programs reported a decrease in funding.¹² While we recognize the difficult decisions you face during this extremely challenging budget year, VAWA, VOCA, and Family Violence Prevention and Services Act (FVPSA) funding, is critically needed to prevent and end domestic and sexual violence in our country. To address unmet needs and build upon its successes, VAWA should maintain at least fiscal year 2012 funding levels, with key targeted investments for fiscal year 2013.

Specific Investments in VAWA Programs

Services, Training, Officers Prosecution (STOP)—\$205 Million Request.—STOP grants are formula grants given to each State to improve the criminal justice response to domestic violence, dating violence, sexual assault, and stalking, are used to develop coordinated community responses. Many States and jurisdictions have implemented STOP-funded strategies that have led to a direct reduction in domestic violence homicides.¹³ As part of the coordinated community response, STOP also supports the work of victim services agencies. According to Parents and Children Together Peace Center, Hawaii, “as a result of these funds, we have been able to provide much-needed individual counseling to victims with complex needs such as mental illness, language barriers, living in a rural area and/or immigrants.”¹⁴ Investment in the STOP program is needed to ensure that communities across the country continue to strengthen their efforts to hold perpetrators accountable and support victims.

Sexual Assault Victim Services Program (SASP)—\$35 Million Request.—This formula grant addresses the extreme needs of sexual assault victims by allowing States, tribes, and territories to provide critically needed direct services to victims and training and technical assistance to various organizations including law enforcement, courts, and social services. In 2009, 56 percent of rape crisis centers were forced to reduce staff due to a lack of funds. A 2010 survey revealed that 25 percent of rape crisis centers have a waiting list for crisis services.¹⁵ Increased investment in SASP is essential to meet the needs of sexual assault victims.

¹⁰ Andersen Clark, K., et al. (2002). “A Cost-Benefit Analysis of the Violence Against Women Act of 1994.” *Violence Against Women*, 8, 417.

¹¹ *The Kentucky Civil Protective Order Study: A Rural and Urban Multiple Perspective Study of Protective Order Violence Consequences, Responses and Cost.* (2009). U.S. Department of Justice.

¹² *Domestic Violence Counts 2010: A 24-Hour census of domestic violence shelters and services across the United States.* The National Network to End Domestic Violence. (January 2010).

¹³ 2010 Biennial Report to Congress on the Effectiveness of Grant Programs Under the Violence Against Women Act. U.S. Department of Justice, Office on Violence Against Women.

¹⁴ STOP (Services • Training • Officers • Prosecutors) Program 2010 Report, U.S. Department of Justice, Office on Violence Against Women.

¹⁵ *National Alliance to End Sexual Violence (2010).* Internet survey of 1,300 rape crisis centers with 644 responses.

Rural Grant Program—\$41 Million Request.—The rural grant program supports services for victims of domestic and sexual violence living in rural and isolated areas. These victims face unique barriers to leaving an abusive situation, including a small number of programs serving a large geographic area, harsh weather conditions that can make travel difficult, under-resourced law enforcement, and a lack of essential services including child care, legal services, and public transportation. Restoring funding of this critically needed program to the fiscal year 2011 level of \$41 million is needed to sustain these services.

Level Funding Requests for Key VAWA Programs

Each authorized VAWA program plays a critical role in sustaining a holistic response to domestic and sexual violence. The individual programs cannot meet the increasing demand for services with continual funding cuts.

Grants To Encourage Arrest Policies and Enforcement of Protection Orders Program (GTEAP)—\$50 Million Request.—GTEAP helps communities develop and sustain a seamless and comprehensive criminal justice response to domestic violence, enhancing victims' safety and holding perpetrators accountable. In Maryland, GTEAP supports the innovative Lethality Assessment Program, which includes a screening tool and protocol for first responders and others to assess lethality and link victims to services. Maryland experienced a 41 percent decrease in domestic violence homicides over the span of 3 years after implementing this program and jurisdictions in 11 other States have also implemented this successful tool. Ongoing funding for GTEAP will allow communities across the country to continue this life-saving work.

Civil Legal Assistance for Victims (LAV)—\$41 Million Request.—Research indicates that the practical nature of legal services gives victims long-term alternatives to their abusive relationships.¹⁶ However, the retainers or hourly fees for private legal representation are beyond the means of most victims of domestic violence, dating violence, sexual assault and stalking. In fact, almost 70 percent of all victims are without legal representation.¹⁷ The Civil Legal Assistance for Victims Program is the only federally funded program designed to meet the legal needs of victims. According to Catholic Charities, Inc. of Mississippi, "the Legal Assistance Clinic has been proactive in working closely with other governmental agencies to ensure that client's issues pertaining to housing (relocation or lease transfer) or employment issues are handled and resolved in a timely manner. Moreover, we have also worked very closely with social service agencies to ensure that clients receive the needed support services and other referrals to agencies/organizations." Continued funding is needed to ensure victims have access to these needed services.

Transitional Housing Grants—\$25 Million Request.—These grants give victims a safe place to begin to rebuild their shattered lives. In just 1 day in 2011, 5,275 adults and 8,501 children were housed in domestic violence transitional housing programs. On the same day, however, 6,714 requests for emergency shelter or transitional housing were denied due to a lack of capacity.¹⁸ The extreme dearth of affordable housing produces a situation where many victims of domestic violence must return to their abusers because they cannot find long-term housing,¹⁹ while others are forced into homelessness.²⁰ Sustained funding for the Transitional Housing program will allow more States and localities to ensure that victims do not have to make these unfathomable choices.

Remaining VAWA Programs.—To end the intergenerational cycle of violence and address the needs of children and youth, we request \$12 million for the consolidated VAWA youth and prevention programs. Additionally, we request at least fiscal year 2012 funding levels for the remaining VAWA CJS programs.

VOCA Fund Cap—\$1 Billion Request

VOCA, passed in 1984, created the VOCA Fund as a protected source of funding for crime victim programs. The Fund does not depend on taxpayer dollars—it de-

¹⁶ See: Farmer, A., & Tiefenthaler, J. (2003). "Explaining the Recent Decline in Domestic Violence." *Oxford Journals*; MacFarlane et al., *Protection Orders and Intimate Partner Violence: An 18-Month Study of 150 Black, Hispanic and White Women*.

¹⁷ Carter, T. (2004) *Pour It On: Activists Cite Rising Need for Lawyers to Respond to Domestic Violence*, A.B.A. Journal, pg. 73.

¹⁸ Domestic Violence Counts 2011: A 24-Hour census of domestic violence shelters and services across the United States. The National Network to End Domestic Violence. (February 2012).

¹⁹ Correia, A., *Housing and Battered Women: A case study of domestic violence programs in Iowa*. Harrisburg, PA: National Resource Center on Domestic Violence. March, 1999.

²⁰ Charlene K. Baker, Cook, Sarah L., Norris, Fran H., "Domestic Violence and Housing Problems: A Contextual Analysis of Women's Help-seeking, Received Informal Support, and Formal System Response," *Violence Against Women* 9, no. 7 (2003): 754–783.

rives entirely from fines and penalties paid by Federal offenders. To ensure a consistent distribution of the Fund to victim service providers each year, the Congress set a cap on the Fund, saving the amount collected over the cap to ensure its stability. Currently, the VOCA Fund has an estimated balance of more than \$5 billion.

The VOCA fund supports a formula grant to States for victim assistance programs, which provide victims with support and services in the aftermath of crime. Most domestic and sexual violence programs, which are at the heart of the response to victims, rely on continued VOCA funding to sustain their programs. With more than 2,000 community-based domestic violence programs, VOCA provides emergency shelter to approximately 300,000 victims, as well as counseling, legal assistance, and preventative education to millions of women, men, and children annually.²¹ This funding is absolutely crucial to keeping victims and their children safe. In order to meet the growing demand for these lifesaving services, I urge the subcommittee to release \$1 billion through the VOCA cap.

Conclusion

An increasingly efficient, comprehensive, and life-saving response to victims, created and sustained by VAWA, FVPSA, and VOCA funding, has made tremendous strides toward preventing and ending domestic and sexual violence in this country. However, as these challenging economic times take a devastating toll on the ability of shelters and rape crisis centers to meet the needs of victims seeking help, victims face traumatic and life-threatening situations with no support. We recognize the difficult decisions you are faced, but we urge you to invest in these life-saving, cost-effective programs that help break the cycle of violence, reduce related social ills and save our Nation money now and in the future.

PREPARED STATEMENT OF THE NATURAL SCIENCE COLLECTIONS ALLIANCE

The Natural Science Collections Alliance appreciates the opportunity to provide testimony in support of fiscal year 2013 appropriations for the National Science Foundation (NSF). We encourage the Congress to provide NSF with at least \$7.373 billion in fiscal year 2013.

The Natural Science Collections Alliance is a nonprofit association that supports natural science collections, their human resources, the institutions that house them, and their research activities for the benefit of science and society. We are comprised of more than 100 institutions which are part of an international community of museums, botanical gardens, herbariums, universities, and other institutions that house natural science collections and utilize them in research, exhibitions, academic and informal science education, and outreach activities.

Federal support for science is an investment in our Nation's future. The NSF supports research that creates new knowledge. NSF-sponsored research also helps to drive innovation and economic growth. The agency supports job creation directly by awarding research grants to scientists and institutions, and through the acquisition of research infrastructure and instrumentation. NSF also trains the next generation of researchers and science educators. Collectively, these activities provide the foundation for the Nation's research enterprise and generate information that ultimately drives economic growth, improves human health, addresses energy needs, and enables sustainable management of our natural resources.

The progress of basic scientific research requires a sustained and predictable Federal investment. Unpredictable swings in Federal funding can disrupt research programs, create uncertainty in the research community, and impede the development of solutions to the Nation's most pressing problems. NSF's budget request for fiscal year 2013 would sustain critical research and education efforts while funding 300 new research grants.

NSF's Biological Sciences Directorate (BIO) is the primary Federal supporter of basic biological research. BIO serves a vital role in ensuring our Nation's continued leadership in the biological sciences by providing about 62 percent of Federal grant support for fundamental biological research conducted at our Nation's universities and other nonprofit research centers such as natural history museums. BIO's support of transformative research has advanced our understanding of complex living systems and is leading the way forward in addressing major challenges, such as conserving biodiversity, combating invasive species, and developing new bio-inspired technologies.

Equally important, BIO provides essential support for our Nation's biological research infrastructure, such as natural science collections and university-based nat-

²¹ National Coalition Against Domestic Violence, *Detailed Shelter Surveys* (2001).

ural history museums. These research centers enable scientists to study the basic data of life, conduct modern biological and environmental research, and provide undergraduate and graduate students with hands-on training opportunities. Additionally, NSF's Directorate for Geosciences and Office of Polar Programs support data and specimen collections that contribute to our understanding of the Earth's systems.

Support for Scientific Collections

Scientific collections play a central role in many fields of biological research, including disease ecology, biodiversity, and climate change. They also provide critical information about existing gaps in our knowledge of life on Earth. Indeed, the Federal Interagency Working Group on Scientific Collections recognized this value in their 2009 report, which found that "scientific collections are essential to supporting agency missions and are thus vital to supporting the global research enterprise."

We strongly encourage the Congress to support NSF's request for \$10 million to support the digitization of high-priority U.S. specimen collections. NSF's investment in digitization would enable the scientific community to ensure access to and appropriate curation of irreplaceable biological specimens and associated data, and will stimulate the development of new computer hardware and software, digitization technologies, and database management tools. This effort is bringing together biologists, computer science specialists, and engineers in multidisciplinary teams to develop innovative imaging, robotics, and data storage and retrieval methods. These tools will expedite the digitization of collections and contribute to the development of new products or services of value to other industries.

In addition to supporting digitization efforts, NSF supports curation and preservation of important biological specimens. We are concerned, however, about NSF's proposal to change the Collections in Support of Biological Research (CSBR) program from an annual to biennial competition. This change would effectively cut in half support for preservation and care of our Nation's biological sciences collections. In addition to preserving important biological specimens for ongoing and future research, CSBR awards are an important source of revenue for American-owned companies that specialize in cabinetry and supplies used by museums and universities. CSBR awards also directly employ researchers and curators and are used to train the next generation of biological scientists. Given the current financial strain at many museums and universities, CSBR funding is a critical lifeline that helps to ensure proper curation of specimens. We urge the Congress to restore the proposed funding cut of \$4 million and to encourage other NSF directorates to join with BIO in providing research support to our Nation's natural science collections, which include mineral, water and ice, anthropological artifacts, and biological specimens.

Other Programs

The fiscal year 2013 budget would continue efforts to better understand biological diversity. Funding is included for the Dimensions of Biodiversity program, which supports cross-disciplinary research to describe and understand the scope and role of life on Earth. Despite centuries of discovery, most of our planet's biodiversity remains unknown. This lack of knowledge is particularly troubling given the rapid and permanent loss of global biodiversity. Better understanding of life on Earth will help us to protect valuable ecosystem services and make new bio-based discoveries in the realms of food, fiber, fuel, pharmaceuticals, and bio-inspired innovation.

The Directorate for Geosciences (GEO) also supports research and student training opportunities in natural history collections. GEO supports cross-disciplinary research on the interactions between Earth's living and nonliving systems—research that has important implications for our understanding of water and natural resource management, climate change, and biodiversity.

Within the Directorate for Education and Human Resources, the Advancing Informal STEM Learning program is furthering our understanding of informal science, technology, engineering, and mathematics (STEM) education. This program, formerly called the Informal Science Education program, supports projects that create tools and resources for STEM educators working outside traditional classrooms, such as at museums, botanic gardens, and zoos. The program also builds professional capacity for research and development. We urge the Congress to restore the proposed 22-percent cut to the program.

Conclusion

Continued investments in scientific collections and the biological sciences are critical. The budget request for NSF will help spur economic growth and innovation and continue to build scientific capacity at a time when our Nation is at risk of being outpaced by our global competitors. Please support an investment of at least \$7.373 billion for NSF for fiscal year 2013.

Thank you for your thoughtful consideration of this request and for your prior support of the National Science Foundation.

PREPARED STATEMENT OF THE NSF TASK FORCE OF THE ASME TECHNICAL
COMMUNITIES—KNOWLEDGE AND COMMUNITY SECTOR

INTRODUCTION TO THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Founded in 1880 as the American Society of Mechanical Engineers (ASME), ASME is a not-for-profit professional organization that enables collaboration, knowledge sharing, and skills development across all engineering disciplines, while promoting the vital role of the engineer in society. ASME codes and standards, publications, conferences, continuing education, and professional development programs provide a foundation for advancing technical knowledge and a safer world. ASME conducts one of the world's largest technical publishing operations, holds more than 30 technical conferences and 200 professional development courses each year, and sets some 600 industrial and manufacturing standards.

NATIONAL SCIENCE FOUNDATION FISCAL YEAR 2013 BUDGET REQUEST OVERVIEW

The National Science Foundation (NSF) Task Force of ASME's Knowledge & Community Sector is pleased to comment on NSF's fiscal year 2013 budget request, in support of this year's proposed funding level of \$7.37 billion for NSF.

With its commitment to sponsoring broad-based, cross-cutting programs that expand the boundaries of science and engineering, the NSF is vital in guiding the Nation's nondefense-related research and education. As acknowledged by the administration and the Congress, for the United States to remain globally competitive, prosperous, and secure, the Nation must support transformative, fundamental research that fosters invention and leads to ground-breaking societal advances. Such a paradigm produces a high-tech workforce, stimulates economic growth, addresses critical national challenges, and sustains our Nation's standing as a global leader.

The total fiscal year 2013 NSF budget request is \$7.37 billion, representing an increase of 4.8 percent more than the \$7.03 billion estimate for NSF in fiscal year 2012. While the present budget request still places the NSF far behind the goals of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (America COMPETES) Act, the NSF Task Force feels this is a responsible budget given the current fiscal environment.

Research and Related Activities comprises the major portion of the total NSF request at \$5,983 billion, a 5.2-percent increase more than the fiscal year 2012 level. All of NSF's research directorates receive notable increases in fiscal year 2013. These increases should help the Directorates to recover from the post-2004 NSF budget cuts but would still not bring total NSF funding to its all-time high 2004 level (in fiscal year 2012 adjusted dollars). The resources for the Engineering Directorate (ENG) increase by 6.1 percent more than the fiscal year 2012 level to \$876.3 million, of which \$165.2 million is budgeted through mandate for the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs that ENG administers for all of NSF.

ENG comprises the disciplinary-area divisions of Chemical, Bioengineering, Environmental, and Transport Systems, up 4.7 percent to \$179.4 million; Civil, Mechanical and Manufacturing Innovation (CMMI), up 6.6 percent to \$217 million; and Electrical, Communications and Cyber Systems, up 7.1 percent to \$114.3 million. Industrial Innovation and Partnerships increases 8.7 percent to \$210.3 million; Emerging Frontiers in Research and Innovation increases 3.2 percent to \$32 million; and Engineering Education and Centers increases 2.7 percent to \$123.27 million.

NSF will continue to support research and education efforts related to broad, foundation-wide investments. A share of the ENG budget (allocated from the constituent divisions), will contribute to these initiatives. The following key activities receive increases:

- Faculty early career development (up 4.9 percent to \$216 million);
- Graduate Research Fellowships (GRF) (up 22.6 percent to \$243 million); and
- Research at the Interface of Biological, Math, and Physical Sciences (up 50.9 percent to \$30 million).

Notable reductions include:

- NSF's Climate Change Research program (a 37.4-percent cut to \$6 million), and
- the Networking and Information Technology Research and Development (R&D) program (a 6-percent cut to \$1,207.2 million).

NSF-wide funding for the National Nanotechnology Initiative increases by 6.3 percent to \$434.9 million for fiscal year 2013. In another agency-wide technology pro-

gram, the administration has proposed significant new funding for a cross-cutting advanced manufacturing initiative entitled Cyber-enabled Materials, Manufacturing, and Smart Systems (CEMMSS), totaling \$257 million in fiscal year 2013, an increase of 80.9 percent from roughly \$142 million in fiscal year 2012. Funding for CEMMSS includes \$20.8 million in NSF funding for the National Robotics Initiative, which partners with National Aeronautics and Space Administration, National Institutes of Health (NIH), and United States Department of Agriculture to promote U.S. leadership and education aimed at next generation robotics.

Another initiative which the Task Force views as critical to re-establishing U.S. leadership in clean-energy technology is the Science, Engineering, and Education Sustainability (SEES) program. SEES, proposed for a 29.2-percent increase to \$203 million in fiscal year 2013, will integrate NSF's climate, energy, and engineering programs to increase U.S. energy independence, enhance environmental stewardship and reduce energy use and carbon intensity, while generating continued economic growth.

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS-NATIONAL SCIENCE
FOUNDATION TASK FORCE POSITION

Affirmation and Endorsement

The ASME NSF Task Force highly endorses NSF's crucial function in directing basic research and integrated education programs that keep America at the vanguard of science, engineering, and technology. NSF possesses an exceptional record of comprehensive and flexible support of a breadth of research, from "curiosity-driven" science to targeted initiatives. This achievement has been made possible via strict adherence to the independent peer-review process for merit-based awards. The proposed increases under the President's fiscal year 2013 budget should allow NSF to properly sustain and expand these efforts and commitments, advancing discovery and learning, spurring innovation, and honing the Nation's competitive edge.

The fiscal year 2013 budget request represents a 4.8-percent increase more than fiscal year 2012 funding. Almost all of the total increase for NSF is in R&D activity funding, totaling \$5.98 billion, an increase of 5.6 percent more than fiscal year 2012 funding. Sufficient investment in fundamental science and engineering research, that involves both established and emerging areas, is essential in recognizing and nurturing innovation, in preparing the next generation of scientific talent and leaders, and in producing the products, processes, and services that improve health, living conditions, environmental quality, energy conservation, and national security for all Americans.

Overall, the Task Force also supports and commends activities within ENG. NSF's support of "fundamental research that can contribute to addressing national challenges" is exemplified within ENG. It is important to emphasize that it is through such fundamental science and engineering investment that the next generation technologies are spawned. Examples of successes emanating from ENG include using a technique of catalytic fast pyrolysis in a fluidized bed to make green gasoline from sawdust and other plant materials. Researchers have designed snake robots with sensor-based exploration that maneuver in three dimensions and navigate all manners of terrain, building a map to establish their location; current applications range from search and rescue to minimally invasive heart surgery to archaeological exploration. Researchers have developed a new material, with a low-temperature nonmagnetic phase and a strongly magnetic high-temperature phase that is capable of converting heat into electricity, with implications in revolutionizing power plant technology.

NSF leads the U.S. nanotechnology research effort, and ENG is the focal point within NSF for this key national research endeavor. ASME has strongly supported the National Nanotechnology Initiative (NNI) since its inception as an NSF investment area in fiscal year 2000. The administration has requested \$434.9 million for the NNI in fiscal year 2013, a 6.3-percent increase. The Task Force strongly supports this funding, particularly for investments in activities that will increase research in two key areas—nanomanufacturing and environmental health and safety.

Finally, ASME continues to support NSF's vision of "a nation that capitalizes on new concepts in science and engineering and provides global leadership in advancing research and education." Thus, ASME commends the President's expansion of the Faculty Early Career Development and the Graduate Research Fellowships programs. Funding for the Faculty Early Career Development awards will support exceptionally promising college and university junior faculty who are most likely to become the academic leaders of the 21st century. The fiscal year 2013 request provides substantial increases for some of NSF's flagship graduate fellowship and traineeship programs, but does not universally increase investments:

- \$243 million is provided for the GRF program (an increase of 22.6 percent);
- \$52 million (a reduction of 13.6 percent) for the Integrative Graduate Education and Research Traineeship Program; and
- \$27 million for the Graduate Science, Technology, Engineering, and Mathematics (STEM) Fellowships in K–12 Education program (a reduction of 0.2 percent).

NSF also supports the Research Experiences for Undergraduates program at \$68 million (an increase of 3.7 percent), the Research Experiences for Teachers program at \$5 million (–21.6 percent), and the Research in Undergraduate Institutions program at \$40 million, (the same level as last year).

QUESTIONS AND CONCERNS

ASME's key questions and concerns arising from the fiscal year 2013 budget request center on:

- the need for sustainable funding for NSF;
- low-funding success rates for new grants, and low funding levels for existing grants;
- funding ranking for ENG with respect to other Directorates within NSF; and
- the need for increased funding for core disciplinary research within ENG.

NSF is the only Federal agency devoted “to the support of basic research and education across all fields of science and engineering”. While comprising only a small percentage of the total Federal budget for R&D, NSF provides 22 percent of the Federal support given to academic institutions for basic research overall, or 61 percent when medical research supported by the NIH is excluded. Moreover, while NSF does not directly support medical research, its investments do provide the technologies in diagnosis, medicine, pharmaceutical manufacturing, and drug delivery that are essential for the medical sciences and related industries. Given recent appropriations to provide NSF with budget increase despite the long-term fiscal challenges posed by our national debt, the ASME NSF Task Force lauds the Congress and the administration for their recognition of the unique role that NSF plays in the scientific enterprise, and encourages them to provide sustainable funding for NSF in fiscal year 2013 for the future prosperity of our Nation.

Although the funding success rate for research grants at NSF has increased over the past few years, it is still well below the 30-percent level of the late 1990s, a trend projected to continue in fiscal year 2013. The 2011 funding success rate is estimated at 22 percent, evincing that budget increase of 1.7 percent in fiscal year 2012 and the slated budget increase of 4.8 percent for fiscal year 2013 would still prevent a large number of excellent, meritorious proposals from being funded. Nonetheless, even maintaining current grant size and duration is not enough. An extended period of constant grant sizes has diminished buying power for grants due to inflationary effects, thus limiting the ability of grant recipients to adequately support research and student development. Note that the bulk of the grants are budgeted for graduate student stipend and tuition. Noteworthy, ENG has a funding success rate for research grants of 5 percent less than the average for other NSF directorates (ENG achieved a 17 percent success rate versus approximately 22 percent for NSF-wide in 2011). Moreover, ENG is also reduced its average annualized award size to \$110,000 in 2011, down more than \$6,500 from the 2010 level.

ENG is the single largest source of Federal funding for university-based, fundamental engineering research—providing 45 percent of the total Federal support in this area. However, ENG (less SBIR/STTR) is still only fourth in total funding (at \$711.1 million) of the six Directorates within NSF, despite receiving an increase of 5.7 percent in the fiscal year 2012 (excluding SBIR/STTR). Our Nation's long-standing global prominence in technological innovation may be jeopardized if such investments in basic engineering research and education are hindered by dearth of Federal funding in engineering.

The total funding for nonpriority-area core disciplinary research, from which new priority areas and even new disciplines are often engendered, within ENG should still be scrutinized. Funding for broad, Directorate-wide priority areas (e.g., Cyber-enabled Materials, Manufacturing, and Smart Systems; Clean-Energy Technology; and National Nanotechnology Initiative) and the SBIR/STTR program within ENG constitute almost one-half of the budget request for ENG. The Task Force does not advocate for the redistribution of monies from investment priority-areas into nonpriority core areas, but rather provide significant increases for completely flexible core funds in order to develop the creative and novel ideas that feed the comprehensive fundamental science, engineering, and technology knowledge base, which serves to advance this Nation's health, prosperity, and welfare, and security.

CONCLUSION

The ASME NSF Task Force urges the Congress to support the administration's request at a minimum of \$7.37 billion for fiscal year 2013, and enthusiastically supports the NSF's strategic plan of "empower the Nation through discovery and innovation." We commend the Congress and the administration for their recent support for NSF in the fiscal year 2012 appropriations process, but remain concerned that inadequate funding will impede those pursuing research oriented careers in STEM disciplines.

We are further concerned the goals of the America COMPETES Act have largely fallen off of the national agenda. U.S. investments in science and technology have consistently paid back into the economy—generating new jobs and new industries—far more than taxpayers have invested. The lack of focus on scientific and technological competitiveness is particularly worrisome for America's future global competitiveness given the continued strong growth in R&D investments around the world. The Congress should work to fulfill the goals of the America COMPETES Act in order to stimulate our economy with the fruits born from science and technology. Sustained yearly increases in the NSF's budget are needed for both core disciplinary research and integrated education. Increasing award duration would promote a more stable and productive environment for learning and discovery. Longer time-tables would also provide researchers with opportunities to deliver expanded education and research experiences to students. We encourage the Congress to make available these needed resources for NSF in fiscal year 2013.

PREPARED STATEMENT OF THE NATIONAL WILDLIFE FEDERATION

On behalf of the National Wildlife Federation (NWF), our Nation's largest conservation advocacy and education organization, and our more than 4 million members and supporters, I thank you for the opportunity to provide testimony which includes funding recommendations for the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF) and the National Aeronautics and Space Administration (NASA). While NWF supports numerous programs under the jurisdiction of this subcommittee, including NOAA's Estuary Restoration Program, Coastal Zone Management Grants Regional and Coastal Zone Management and stewardship; the purpose of this testimony is to recommend fiscal year 2013 funding levels (totaling \$35.2 million) for specific environmental education and climate change education programs that we believe are vital to NWF's mission to inspire Americans to protect wildlife for our children's future.

This subcommittee has taken a leadership role in funding environmental education and climate change education at the Federal level. While we appreciate the subcommittee's leadership, we believe that the overall Federal investment in environmental education and climate change education programs nationwide—pennies per capita—is woefully inadequate. NWF also supports climate change education and environmental education programs across the Federal agencies at the U.S. Forest Service, Environmental Protection Agency, Department of Education, and Department of the Interior.

SUMMARY OF RECOMMENDATIONS

[In millions of dollars]

Agency	Program	Fiscal year 2012 enacted	Fiscal year 2013 NWF recommendation
NOAA	Bay Watershed Education and Training [B-WET]	7.2	7.2
NOAA	Environmental Education Initiatives, including Environmental Literacy Grants ..	8.0	8.0
NSF	Climate Change Education	10.0	10.0
NASA	Climate Change Education	10.0	10.0

The Need for Environmental Education

As our Nation moves toward a clean-energy economy and creates new "green jobs", we must ensure that our education infrastructure keeps pace. As is increasingly recognized by business leaders, environmental literacy provides critical knowledge that is essential for the success of a 21st century workforce—equipping students with the skills to understand complex environmental issues, thus enabling them to both make better informed decisions as citizens and help find solutions for the challenges facing our Nation. Studies have demonstrated that environmental lit-

eracy is fundamental to improving student achievement in STEM (science, technology, engineering, and math) education, to creating a stronger economy through green jobs, and to promoting environmental stewardship. To be successful as a Nation under a new clean-energy economy, we must have an environmentally literate citizenry that has the knowledge to find new, innovative solutions to protect our planet.

NOAA

Environmental Literacy Grants

NWF supports the fiscal year 2012 baseline for NOAA's Environmental Literacy Grants and requests \$8 million in fiscal year 2013. NOAA's Office of Education oversees several Environmental Education Initiatives, the largest initiative being the Environmental Literacy Grants (ELG) program which helps to establish new partnerships that deliver educational materials to thousands of teachers and students. The ELG program enables NOAA to partner with the top science centers, aquaria, and educators in the country to educate the public about vital issues around our changing planet. It also allows NOAA to leverage the vast array of climate science being undertaken to increase public understanding and the quality of education. These funds are awarded on a competitive basis and are increasingly used to build capacity at the national and regional levels.

B-WET Programs

NWF supports funding NOAA's B-WET program at \$7.2 million in fiscal year 2013. Administered by NOAA since 2003, the B-WET program offers competitive grants to leverage existing environmental education programs, foster the growth of new programs, and encourage development of partnerships among environmental education programs within watershed systems. B-WET's rigorously evaluated programs are implemented by region, which allows the unique environmental and social characteristics of the region to drive the design of targeted activities to improve community understanding, promote teacher competency, and enhance student interest and achievement in science. A fundamental goal of the program is to demonstrate how the quality of the watershed affects the lives of the people who live in it. B-WET supports programs for students as well as professional development for teachers, while sustaining regional education and environmental priorities. B-WET awards have provided environmental education opportunities to more than 100,000 students and 10,000 teachers. With an increase in funding in fiscal year 2008, B-WET expanded from the Chesapeake Bay, California, and Hawaii to also include the Pacific Northwest, the northern Gulf of Mexico, and New England. Sustained funding of \$7.2 million in fiscal year 2013 will enable this successful program to continue addressing the needs of some of America's largest watersheds.

NASA

Climate Change Education Grant Program

NWF supports funding NASA's Climate Change Education Grant Program at \$10 million in fiscal year 2013. In fiscal year 2008, the Congress appropriated funds for the first time to address climate change education by providing funding for climate change education grants through NASA. In August 2008, NASA announced a Request for Proposals for a first-ever competitive grant program seeking applications from educational and nonprofit organizations to use NASA's unique contributions to climate and Earth system science. The goals of the program include:

- improving the teaching and learning about global climate change in elementary and secondary schools and on college campuses;
- increasing the number of students using NASA Earth observation data/NASA Earth system models to investigate and analyze global climate change issues;
- increasing the number of undergraduate students prepared for employment and/or to enter graduate school in technical fields relevant to global climate change; and
- increasing access to high-quality global climate change education among students from groups historically underrepresented in science.

NWF recommends that the NASA climate change education program be primarily used for grantmaking purposes, and focus not only on education about climate science, but also advance education that focuses on the connections and relationships between climate change, the economy, energy, health, and social well-being.

NSF

Climate Change Education Grant Program

The National Wildlife Federation supports funding NSF's Climate Change Education (CCE) Grant Program at \$10 million in fiscal year 2013. While public awareness and concern for environmental issues continue to rise, the vast majority of the public remains demonstrably illiterate about the impact of the environment on their lives and how their decisions and actions contribute to it.

Yet CCE is newly emerging as a field, with few materials, curricula, models, standards, or professional development opportunities to fill the void. Furthermore, CCE is inherently interdisciplinary; and as a result, it often falls through the cracks in traditional science education.

NSF initiated the CCE grant program in fiscal year 2009. This program is aimed at improving K–12 to graduate education in climate change science and increasing the public's understanding of climate change and its consequences. In fiscal year 2012 CCE was appropriated \$10 million. The Congress should sustain fiscal year 2012 appropriation levels in fiscal year 2013 at \$10 million to aid in the development of the next generation of environmentally engaged scientists and engineers by supporting awards in the following areas:

- increasing public understanding and engagement;
- development of resources for learning;
- informing local and national science, technology, engineering, and mathematics (STEM) education policy;
- preparing a climate science professional workforce; and
- enhancing informed decisionmaking associated with adaptation to and mitigation of climate change impacts.

These emerging priorities lie at the intersection of social/behavioral/economic and Earth system sciences.

CONCLUSION

Providing Federal support for environmental education is a critical strategy in securing our new clean-energy future and preparing the next generation for the challenges and opportunities ahead. Thank you again for providing NWF with the opportunity to provide testimony.

PREPARED STATEMENT OF THE OCEAN CONSERVANCY

Thank you for this opportunity to provide Ocean Conservancy's recommendations for fiscal year 2013 funding for National Oceanic and Atmospheric Administration (NOAA). We urge the Congress to provide an overall funding level of \$5.3 billion for NOAA in order to fully fund the request for NOAA's satellite procurements and restore overall funding for ocean and coastal programs to fiscal year 2010 levels. Within that total we recommend the following funding levels for the following specific programs:

[In millions of dollars]

Account, program, or activity	Fiscal year 2012 enacted	Fiscal year 2013 Presi- dent's budget	Fiscal year 2013 rec- ommended level
Operations research and facilities:			
National Ocean Service:			
Regional ocean partnerships	3.5	4.0	10.0
Marine debris	4.60	¹ 3.40	5.25
National Marine Fisheries Service:			
Expand annual stock assessments	63.5	68.6	68.6
Fisheries statistics	23.1	23.5	24.4
Office of Oceanic and Atmospheric Research:			
Integrated ocean acidification	6.2	6.4	11.6
Program Support: Office of Marine and Aviation Operations	182.9	196.2	196.2
TOTAL, NOAA	4,964.0	5,133.0	5,300.0

¹ Proposed funding for Marine Debris in fiscal year 2013 is unclear as NOAA has moved the Marine Debris program line into the Habitat Conservation and Restoration and merged it with several other programs.

Ocean Conservancy has worked for nearly 40 years to address ocean threats through sound, practical policies that protect our ocean and improve our lives. We recognize that real leadership means real cooperation—between governments, busi-

nesses, scientists, policymakers, conservation organizations, and citizens. Our focus is on creating concrete solutions that lead to lasting change—so we can benefit from the ocean for generations to come.

We simply cannot afford the underfunding of NOAA's ocean and coastal programs. NOAA's mission in protecting, restoring, and managing our oceans and coasts is vitally important not only to our oceans and coasts, but also to our coastal and national economies. In 2009, according to the National Ocean Economics Program, coastal tourism and recreation contributed more than \$61 billion to the Gross Domestic Product and accounted for more than 1.8 million jobs. Covering two-thirds of Earth's surface, the ocean is home to 97 percent of all life. Even the air we breathe is connected to a healthy ocean—more than one-half of the oxygen in the atmosphere is generated by ocean-dwelling organisms.

While we recognize these are tough fiscal times, and the Congress is trimming Government budgets across-the-board, NOAA's ocean programs have been particularly hard-hit with a nearly 14-percent reduction since 2010. With satellite procurement costs continuing to grow, we urge the Congress to maintain a balanced portfolio on investments across NOAA's missions. Americans shouldn't have to choose between forecasting the weather and protecting our ocean. We need both.

We recommend a total funding level of \$5.3 billion for NOAA. This funding supports the President's request for the Procurement, Acquisition, and Construction account, while restoring funding for the Operations Research and Facilities account to fiscal year 2010 funding levels. Providing the resources needed to make smart choices for a healthy ocean will not just benefit those who live and work along the coast, but the American economy and environment as a whole.

Within the recommended funding of the Operations, Research, and Facilities account, Ocean Conservancy would like to highlight the following as top priorities for robust funding:

Investments in Fisheries Science and Information

Expand Annual Stock Assessments, \$68.8 million.—Stock assessments provide critically needed resources for fisheries managers to assess priority fish stocks and implement the requirement for annual catch limits (ACLs). The survey and monitoring and stock assessment activities funded under this line give fishery managers greater confidence that their ACLs will avoid overfishing while providing optimal fishing opportunities. Because the information provided by stock assessments is so vital to the near-term implementation of ACLs and long-term goals for sustainable management of U.S. fisheries, increased funding for stock assessments should remain among the highest priorities in fiscal year 2013 and beyond. We have turned the corner on ending overfishing and the information provided by stock assessments is needed to sustain the progress we have made and to continue to improve fisheries management for the long-term health of fish and fishermen.

Fisheries Statistics: Marine Recreational Fisheries Monitoring, \$24.4 million.—Despite their often sizeable economic and biological impacts, much less data are collected from recreational saltwater fisheries than commercial fisheries due to the sheer number of participants and limited sampling of anglers' catches. Improved sampling and timelier reporting of catch data are needed for successful management of marine recreational fisheries. NOAA has recently begun to implement the new Marine Recreational Information Program (MRIP) with the goal of providing better regional monitoring of recreational fishing participation, catches, landings, and releases of finfish species in marine waters and estuaries for all 50 States and the U.S. territories and Commonwealths. Since its inception in 2008, MRIP funding has increased to expand the program's capability, but significant additional funding is still needed to provide more frequent and timely data for more effective in season management of recreational fisheries. An increase of \$1.3 million more than the fiscal year 2012 enacted level is needed for MRIP for a funding level of \$24.4 million for Fisheries Statistics in fiscal year 2013.

Office of Marine and Aviation Operations (OMAO) Operations and Maintenance \$196.2 million.—Base funding for NOAA's OMAO supports a fleet of 10 Fishery Research Vessels whose primary mission is to provide baseline information on fish populations that is critical to the development and regular updating of fishery stock assessments for the catch-setting process. More than 80 percent of stock assessments for species rely on this data. In recent years, however, rising operating costs (largely attributable to rising fuel costs) and budget constraints have sharply reduced the base-funded days at sea (DAS) for NOAA's fleet. The number of base-funded DAS for NOAA's fleet declined 40 percent between 2006 and 2011 forcing NMFS to spend its program funds to "buy back" days at sea not covered by OMAO in order to maintain its regularly scheduled surveys and collect data that is needed to set appropriate catch limits. In order to meet the number of DAS needed to col-

lect the data required by managers, we support the President's budget request of \$196.2 million.

Regional Ocean Partnership Grants, \$10 million.—The Regional Ocean Partnership (ROP) grants program provides competitively awarded funds to projects that support regional priorities for ocean and coastal management and science. Regional approaches continue to be the most effective and efficient way to address ocean management challenges. Dozens of coastal Governors have come together voluntarily to establish ROPs that bring together State and Federal agencies, tribes, local governments, and stakeholders to tackle ocean and coastal management issues of common concern, such as pollution, habitat restoration, and siting offshore energy. While priorities, structures, and methods may differ, these partnerships are collectively working toward an improved ocean environment and a stronger ocean-related economy for the Nation. Competitively awarded grants for ROPs ensure that ocean management is a State-driven process where priorities are determined by actual, on-the-ground needs. Without these competitive grant funds, States and their partnerships will be less able to assert local and regional management needs, and their ability to leverage the Federal Government's expertise and capacity will be weakened.

While we greatly appreciate the President's budget request for \$4 million for ROP grants, the reality is that \$4 million spread across the entire Nation's coastal regions falls far short of what State partnerships actually need. Without this increase, it is possible that some regions and regional entities may receive either no funding or only very limited funding. Increased Federal support for ROPs—which represent every coastal and Great Lakes State in the continental United States—will ensure that funding will reach more regions and strengthen more States' ability to foster sustainable use of our oceans, coasts, and Great Lakes. For these reasons, we request that the ROP Grants line-item within NOAA's National Ocean Service (NOS) be increased to \$10 million.

Marine Debris, \$5.25 million.—Marine debris has become one of the pervasive pollution problems facing the world's oceans, coasts, and waterways. Research has demonstrated that persistent debris has serious effects on the marine environment, wildlife and the economy. Marine debris is its various forms including derelict fishing gear and plastics, causes wildlife entanglement, destruction of habitat, and ghost fishing. It also presents navigational hazards, causes vessel damage, and pollutes coastal areas. The problem of marine debris has been growing over the past several decades and natural disasters such as the March 2011 Japanese tsunami tragedy can exacerbate an already challenging issue. Trash travels and research indicates that tsunami debris could impact the Northwestern Hawaiian Islands in the spring of 2012 and the west coast of the United States in 2013.

While the quantity of marine debris in our ocean has greatly increased, funding for NOAA's Marine Debris Program has remained well below the authorized level of \$10 million. We were pleased to see an additional \$600,000 for marine debris removal in 2012, but additional resources are needed to ensure NOAA has the capacity to monitor and respond to the impacts of debris from the tsunami and other sources. In order to sustain current programs and allow NOAA the capacity to evaluate, track and clean up the debris from the tsunami which is likely to impact U.S. shores, for fiscal year 2013 we request \$5.75 million, \$750,000 more than fiscal year 2012 funding levels.

In addition, the administration has proposed moving the Marine Debris Program out of the NOS and into the National Marine Fishery Service's (NMFS) Habitat Conservation and Restoration Program. We have significant concerns with this proposal. When the Congress passed the Marine Debris Act of 2006, the Marine Debris Program was deliberately placed within NOS. The program's role includes conducting scientific research, addressing navigational hazards, identifying the economic impacts of debris, and preparing and responding to marine debris events. If placed under the umbrella of NMFS's Habitat Conservation and Restoration Program, the effort and the scope Marine Debris Program could be restricted. Working closely with NOS's Office of Response and Restoration's (ORR) emergency division, the program has collaborated on tsunami debris response through modeling, assessment, and preparation. At a time when the potential impacts of the tsunami are unknown, it seems a close connect between ORR and the Marine Debris Program should be a priority.

Integrated Ocean Acidification Program, \$11.6 million.—In recent years, scientists have raised the alarm about ocean acidification—a process whereby ocean waters' absorption of carbon dioxide emissions alters marine acidity. Over the last 250 years, oceans have absorbed 530 billion tons of carbon dioxide, triggering a 30-percent increase in ocean acidity. These changes can have far-reaching consequences for marine life, including economically important species like shellfish and corals.

For example, the shellfish industry in the Pacific Northwest has been devastated in recent years as more acidic waters encroached upon important oyster hatcheries, nearly wiping out several years-worth of oyster “seed”.

Recognizing the dire need for better understanding of this emerging economic threat, in early 2009 Congress passed and enacted the Federal Ocean Acidification Research and Monitoring (FOARAM) Act. Under FOARAM, the Congress instructed NOAA to establish an ocean acidification program to coordinate research, establish a monitoring program, develop adaptation strategies, and provide critical research grants to improve the understanding of ocean acidification’s ecological and socio-economic impacts. Because economic impacts like those seen in the shellfish industry are on the leading edge of what will be a growing problem, adequate funding for this line item is critical to fulfill the Congress’ directives and build the scientific foundation needed to protect vulnerable industries from ocean acidification.

While the President’s budget requests \$6.4 million for Integrated Ocean Acidification for fiscal year 2013, we believe that the President’s fiscal year 2012 request of \$11.6 million is far more reflective of the actual on-the-ground needs. As stated in the President’s fiscal year 2012 NOAA congressional budget justification, funding at the \$11.6 million level will allow NOAA to develop more cost-efficient acidification sensors for monitoring; conduct an assessment of acidification effects on commercial and recreational marine fish stocks; and create a Coral Reef Ocean Acidification Observing Network. By increasing the programmatic funding for Integrated Ocean Acidification to this level, NOAA will be able to take these concrete actions to more effectively tackle the economic, on-the-ground implications of ocean acidification and prepare more effectively for future adaptation strategies that will protect our Nation’s key ocean and coastal economic assets.

LETTER FROM RICHARD M. WHITMAN, NATURAL RESOURCES POLICY DIRECTOR,
OREGON GOVERNOR’S OFFICE

MARCH 20, 2012.

The Hon. BARBARA MIKULSKI, Chairwoman,
Subcommittee on Commerce, Justice, Science, and Related Agencies, Committee on Appropriations, United States Senate, Washington, DC.

The Hon. KAY BAILEY HUTCHISON, Ranking Member
Subcommittee on Commerce, Justice, Science, and Related Agencies, Committee on Appropriations, United States Senate, Washington, DC.

DEAR CHAIRWOMAN MIKULSKI AND SENATOR HUTCHISON: The Governor of Oregon is committed to working together with California and Washington to improve ocean health off the west coast. In 2008, our then Governor Kulongoski released the action plan for the West Coast Governors Alliance on Ocean Health, together with the Governors of California and Washington. As recommended by both the U.S. Commission on Ocean Policy and the Pew Oceans Commission, the action plan uses a collaborative approach to address some of our region’s most pressing ocean and coastal management challenges, such as preparing coastal communities for the effects of sea level rise.

The purpose of this letter is to request support for \$10 million in the fiscal year 2013 budget for the nine regional ocean partnerships in the United States. These grants will provide essential support for the development and implementation of action plans within each region. Additionally, I request appropriation language stating that 10 percent of the total funding be divided equally to existing partnerships for operations support, and that the remaining funding broadly support the development and implementation of regional priorities as determined by the partnerships through competitive solicitations.

The alliance affirms our commitment to work together on seven priority issues:

- Ensuring clean coastal waters and beaches;
- Protecting and restoring healthy ocean and coastal habitats;
- Promoting the effective implementation of ecosystem-based management of our ocean and coastal resources;
- Reducing adverse impacts of offshore development;
- Increasing ocean awareness and literacy among our residents;
- Expanding ocean and coastal scientific information, research, and monitoring;
- and
- Fostering sustainable economic development throughout our diverse coastal communities.

Regional approaches can advance Federal interests in ocean management through coordination with other levels of government by providing direct resources to ad-

dress the unique needs of a region, as well as integrated, efficient, and effective management of ocean resources.

The plan advances key priorities of the National Ocean Policy in areas such as water quality, ocean and coastal research and mapping, coastal pollution, and habitat protection and restoration. The West Coast Governors Alliance works closely with representatives of the National Oceanic and Atmospheric Administration, the Environmental Protection Agency, and the Department of the Interior to implement the regional action plan, and will continue to collaborate with the interagency Subcommittee on Integrated Management of Ocean Resources.

Our request to support funding for regional ocean partnerships in the fiscal year 2013 budget will help the region, and regional ocean partnerships throughout the United States, implement effective regional ocean governance to the benefit of coastal communities and all who benefit from healthy coasts and oceans.

Thank you for considering this request to support \$10 million in fiscal year 2013 funding for the regional ocean partnerships in the United States. This level of funding will help the West Coast Governors Alliance on Ocean Health implement its actions plan, and will improve the economic and environmental health of both the west coast and the Nation.

Sincerely,

RICHARD M. WHITMAN,
Natural Resources Policy Director,
OREGON GOVERNOR'S OFFICE.

PREPARED STATEMENT OF THE UNITED STATES SECTION OF THE PACIFIC SALMON
COMMISSION

Mr. Chairman, my name is W. Ron Allen, and I serve as a Commissioner on the United States Section of Pacific Salmon Commission (PSC). The PSC was established in 1985 to oversee implementation of the Pacific Salmon Treaty (Treaty) between the United States and Canada. In May 2008, the PSC concluded bilateral negotiations that developed revised 10-year salmon fishing regimes to replace regimes that were expiring at the end of 2008. The provisions of the new fisheries agreements were approved by the United States and Canadian Federal governments and are being implemented for the 2009–2018 period. The U.S. Section is requesting that the Congress includes funding in the fiscal year 2013 National Marine Fisheries Service (NMFS) budget for the Pacific Salmon Treaty at \$9,708,000 and the Chinook Salmon Agreement at \$1,844,000.

The implementation of the Treaty is funded through the Departments of Commerce, the Interior, and State. The Department of Commerce funds implementation of the Treaty as line items under Salmon Management Activities. The funding for Salmon Management Activities in the President's fiscal year 2013 budget is similar to previous years. However, the line item breakout within Salmon Management Activities was not made available to us.

The U.S. Section recommends that the Congress:

- Fund the Pacific Salmon Treaty line item of NMFS at \$9,708,000 for fiscal year 2013 an increase in funding compared to \$5,600,000 in recent-year budgets. This funding provides support for the States of Alaska, Washington, Oregon, and Idaho and the NMFS to conduct the salmon stock assessment and fishery management programs required to implement the Treaty's conservation and allocation provisions for Coho, Sockeye, Chinook, Chum, and Pink salmon fisheries. Included within the total amount of \$9,708,000 is \$400,000 to continue a joint Trans-boundary River Salmon Enhancement Program as required by the Treaty.
- Fund the Pacific Salmon Treaty Chinook Salmon Agreement line item of NMFS for fiscal year 2013 at \$1,844,000, level funding from what has been provided by the Congress in recent years. This funding is necessary to acquire the technical information to fully implement the abundance-based Chinook salmon management program provided for under the Treaty.

The funding identified above is for ongoing annual programs and does not include new funding specifically needed for full application of the revised agreement for 2009–2018 that was negotiated by the PSC and accepted by the governments of the United States and Canada on December 23, 2008. Funding for implementing the revised treaty arrangements was part of NMFS fiscal year 2012 budget, and the U.S. PSC Commissioners recommend that it be continued in the fiscal year 2013 Federal budget.

The base Treaty implementation projects included in the Pacific Salmon Treaty line item consist of a wide range of stock assessment, fishery monitoring, and tech-

nical support activities for all five species of Pacific salmon in the fisheries and rivers from southeast Alaska to Washington, Oregon, and Idaho. The States of Alaska, Washington, Oregon, Idaho, the Federal NMFS, and the 24 treaty tribes of Washington and Oregon are charged with conducting the salmon fishery stock assessment and harvest management actions required under the Treaty. Federal funding for these activities is provided through NMFS on an annual basis.

The agency projects carried out under PSC funding are directed toward acquiring, analyzing, and sharing the information required to implement the salmon conservation and sharing principles of the Treaty. A wide range of programs for salmon stock size assessments, escapement enumeration, stock distribution, and catch and effort information collection from fisheries are represented. The information from many of these programs is used directly to establish fishing seasons, harvest levels, and accountability to the provisions of Treaty fishing regimes.

The base Treaty implementation funding of approximately \$5.6 million budget has essentially remained at this low level since the early 1990s. Since that time, the growing complexity of conservation-based, and Endangered Species Act compliant fishing regimes has required vastly more stock assessment, fishery compliance monitoring, and technical support activities. In order to continue to fulfill the Federal commitments created by Pacific Salmon Treaty, the States have had to augment Federal funding with other Federal and State support. For example, additional sources of funding have included Federal Anadromous Fish Grants, Federal Pacific Coast Salmon Recovery Funds (PCSRF), Federal Dingell-Johnson dollars, and State general funds. However, alternative sources for funding have been reduced or eliminated with the Anadromous Fish Grants eliminated in the Federal fiscal year 2010 budget, use of PCSRF monies constrained in fiscal year 2010 by new appropriations language and further constrained in 2012 by the NMFS, and State dollars and Dingell-Johnson grants cut significantly during the current economic downturn.

The economic impact of commercial and sport fisheries has been measured by the U.S. Fish and Wildlife Service at approximately \$2-\$3 billion per year to the States involved in the PST. To continue to implement the Federal PST conservation-based fishing regimes that contribute to the sustainability of salmon stocks and the large economic return to the States, the U.S. PSC members recommend an increase in base treaty implementation funding from the current \$5.6 million to \$9,708,000.

Effective, science-based implementation of negotiated salmon fishing arrangements and abundance-based management approaches for Chinook, southern Coho, Northern Boundary and Trans-boundary River salmon fisheries includes efforts such as increased annual tagging and tag recovery operations and application of other emerging stock identification techniques. The U.S. PSC members recommend that \$9,708,000 be provided for the NMFS Pacific Salmon Treaty line item in fiscal year 2013 for the States for Treaty technical support activities. The \$400,000 that has been provided in the separate International Fisheries Commissions line item since 1988 for a joint Trans-boundary River enhancement program with Canada is now included in this amount. The recommended amount for the combined projects represents an approximate increase of \$4,108,000 more than the amount appropriated for fiscal year 2012.

Beginning in fiscal year 1998, the Congress provided \$1,844,000 to allow for the collection of necessary stock assessment and fishery management information to implement a new abundance-based management approach for Chinook salmon coast-wide in the Treaty area. Through a rigorous competitive technical review process for project approval, the States of Alaska, Washington, Oregon, and Idaho, and the 24 treaty tribes use the funding to support research and data collection needed for abundance-based Chinook management. The U.S. Section recommends level funding of \$1,844,000 for fiscal year 2013 to support the abundance-based Chinook salmon management program.

The United States and Canada agreed in 1988 to a joint salmon enhancement program on the Trans-boundary Rivers, which are rivers rising in Canada and flowing to the sea through Southeast Alaska. Since 1989, the Congress has provided \$400,000 annually for this effort through the NMFS International Fisheries Commission line item under the Conservation and Management Operations activity. Canada provides an equal amount of funding and support for this bilateral program. The funding for the U.S. share is included in the \$9,708,000 the U.S. Section is recommending for the fiscal year 2013 NMFS Pacific Salmon Treaty line item.

This concludes the statement of the U.S. Section of the PSC submitted for consideration by your subcommittee. We wish to thank the subcommittee for the support that it has given us in the past. I will be pleased to answer any questions of the committee members.

SUMMARY OF PROGRAM FUNDING FOR THE U.S.-CANADA PACIFIC SALMON TREATY

	Fiscal year 2010 appropriation	Fiscal year 2011 appropriation	Fiscal year 2013 U.S. Section recommendation
Department of Commerce:			
Pacific Salmon Treaty line item	\$5,610,000	\$5,600,000	¹ \$9,708,000
Pacific Salmon Treaty—Chinook Salmon Agreement line item	1,844,000	1,844,000	1,844,000

¹ The recommended fiscal year 2013 amount includes \$400,000 provided for the Joint Trans-boundary River Enhancement Program currently funded under the NMFS International Fisheries Commission account.

Thank you for this opportunity to share the fiscal year 2013 budget requests of the Pacific Salmon Commission.

PREPARED STATEMENT OF THE PACIFIC STATES MARINE FISHERIES COMMISSION

The following testimony is being submitted in response to the administration's proposal to terminate funding for the Inter Jurisdictional Fisheries Act (IJFA) Grants to States, a longstanding line item account within the National Marine Fisheries Service budget. In addition to the fiscal year 2013 proposed termination, the administration has zeroed out the IJFA Grants program for fiscal year 2012 as part of its spend plan, although the Congress appropriated \$1,157,000 for this year.

Traditional funding levels for the IJFA have been roughly \$2.5 million annually. These grants serve to support the conservation and management of fish species which occur in both Federal and State waters. For the west coast, the funding is used to support conservation and management tasks not currently being undertaken by National Oceanic and Atmospheric Administration (NOAA) or the Regional Fishery Management Councils. IJFA is a dollar-for-dollar matching program. The States and the Interstate Marine Fisheries Commissions have considered this program to be a cornerstone in the Federal-State fishery management partnership. The administration's decision to terminate this program effectively nullifies this partnership.

Set forth below is an explanation of how the States of Alaska, Washington, Oregon, Idaho, California, and the Pacific States Marine Fisheries Commission (PSMFC) use IJFA matching grants. If the program funding is terminated, these activities will cease as well or NOAA will be required to allocate internal resources for their continuation.

USES OF INTER JURISDICTIONAL FISHERIES ACT FUNDS BY THE WEST COAST STATES
AND PACIFIC STATES MARINE FISHERIES COMMISSION

Washington and Oregon use the majority of their IJFA funds for groundfish data collection and analysis activities that directly support the implementation of Pacific Coast Groundfish Fishery Management Plan.

In addition, a portion of these funds directly support the cost of yelloweye rockfish surveys using remotely operated vehicles, yellow rockfish longline surveys, and nearshore rockfish tagging projects providing the essential charter boat rental, equipment/gear, data processing, and salary for technicians involved in coastal. A portion of the funds support management of Oregon's Pink Shrimp Fishery. Ocean shrimp are an interjurisdictional fishery found on the west coast. Resource management of shrimp requires monitoring and sampling of fishery catches and logbooks. IJFA funds directly support biologists in monitoring, sampling, and management coordination of the shrimp fishery.

In California IJFA funds support the coastal pelagic species program. Pacific Sardines, Pacific Mackerel, and Jack Mackerel account for nearly 86,000 tons of commercial catch in California.

Field personnel funded by IJFA funds monitor daily landings of Pacific Sardine and Pacific Mackerel made to major commercial fish dealers and processors. Data from samples are used to determine the composition of the catch from which estimates of population size determine recommended harvest amounts for adoption by the Pacific Fishery Management Council.

Field biologist and temporary help staff are also funded by IJFA funds to participate in at-sea cruises designed to collect fishing independent information on the status of coastal pelagic species. These fishery independent data are also used as part of stock assessment efforts to determine allowable harvest levels.

In Idaho IJFA funds support field biologists in carrying out activities to determine the abundance and migratory patterns of steelhead returning to the Snake River. This information is a critical component to setting management, harvest, and

escapement levels conforming to *United States vs. Oregon* and United States-Canadian Treaty obligations.

In Alaska, IJFA funds support salmon research activities in southeast Alaska. The funds have been used to complete four subprojects including Pink and Chum Salmon stock evaluations, Coho Salmon spawning research, salmon catch sampling, and troll fishery management methods research.

IJFA funds are used by PSMFC to coordinate the Tri-State Dungeness Crab Fishery. This is the largest economic fishery in the west coast and seasons are managed on an Interjurisdictional fishery basis. Without IJFA funding of meetings and workshops would not be possible and State management of Dungeness Crab could become a Federal responsibility.

In addition PSMFC has used IJFA funds to establish a new initiative to support and encourage increased scientific and conservation for coastal cutthroat trout (CCT) throughout their geographic distribution (from California to Alaska). The effort includes nine State, Federal, tribal, and provincial partner agencies. This IJFA funded range-wide initiative is important because it helps coordinate activities for fish species that is typically underfunded. It is necessary because the trout has a complex regulatory history, for example, it is currently listed as a sensitive species by many of our partner agencies, and was listed as threatened under the Endangered Species Act (ESA). Finally, these trout hold a unique place in the angling world as it is 1 of 2 sea-going trout in Western North America. The PSMFC initiative has resulted in two technical workshops and a national symposium, a framing document that outlines the needs and broad-scale priority actions for CCT, a status assessment in collaboration with the Western Native Trout Initiative, and an ambitious and successful data gathering project.

Since 1991, IJFA funds have been used by the PSMFC to sponsor biennial west coast workshops on steelhead management. Topics for these workshops include stock status, ESA activities, life histories of steelhead, life histories and historical abundance of steelhead, and technology applications for steelhead studies. This unique forum allows steelhead managers and researchers on a coastwide basis (United States and Canada, including Alaska and Idaho) to discuss common problems and to share insights into possible solutions.

IJFA funds also support the Technical Subcommittee (TSC) of the Canada-U.S. Groundfish Committee, which has met at least annually since 1960. The purposes of the TCS are to:

- Exchange information on the status of groundfish stocks of mutual concern and coordinate, whenever possible, desirable programs of research.
- Recommend the continuance and further development of research programs having potential value as scientific basis for future management of the groundfish fishery.
- Review the scientific and technical aspects of existing or proposed management strategies and their component regulations relevant to conservation of stocks or other scientific aspects of groundfish conservation and management of mutual interest.
- Transmit approved recommendations and appropriate documentation to appropriate sectors of Canadian and U.S. governments and encourage implementation of these recommendations.

IJFA funds support PSMFC staff for habitat conservation and marine debris abatement work through participation in three primary Interjurisdictional forums:

- the Pacific Fishery Management Council's (Council) Habitat Committee;
- the West Coast Governor's Agreement on Ocean Health marine debris action coordination team; and
- the Pacific Marine Estuarine Fish Habitat Partnership.

Work regarding climate change strategies and planning for the Pacific Northwest was also pursued. IJFA project funding allowed PSMFC to play active roles in preparing for, participating in, and doing follow-work for the Council Habitat Committee and serving as the vice chair of that committee. This committee advised the Council on conservation and resource topics that influence habitat productivity. These include duties mandated by the Federal Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265) to comment on significant issues that affect salmon productivity. Additionally, Essential Fish Habitat, climate change and ecosystem-based fishery management and topics regarding water issues, are frequently a part of its agenda.

Since 1999 the PSMFC's Aquatic Invasive Species (AIS) Program (with the support of IJ funds) has worked to prevent and/or minimize impacts of AIS, particularly those species that affect fisheries and the habitat upon which those fisheries depend. The program elements include eradication, research, monitoring, educational outreach, interjurisdictional planning, and coordination.

IJFA funds are critical and providing support for the AIS program particularly in the past 5 years as west coast steelhead and salmon waterbodies are being threatened by quagga and zebra mussels. Zebra and quagga mussels are some of the economically damaging aquatic organisms to invade the United States. The destructive powers of these prolific mollusks lies in their sheer numbers and their ability to biofoul and restrict the flow of water through intake pipes, disrupting supplies of drinking, cooling, processing, and irrigating water to the Nation's domestic infrastructure.

A quagga/zebra mussel infestation in any of these salmonbearing watersheds would be a disastrous step backward for the recovery of these imperiled species and has heightened the urgency of management initiatives to halt further range expansion.

PREPARED STATEMENT OF THE REGIONAL INFORMATION SHARING SYSTEMS PROGRAM

The Regional Information Sharing Systems (RISS) is a proven, trusted, and innovative program that supports local, State, Federal, and tribal criminal justice agencies in their effort to successfully resolve criminal investigations and ensure officer safety. There is no other program in existence through which officers can receive the level of support that RISS provides. Although the demand for RISS's services grows each year, the fiscal year 2012 appropriation for RISS was severely decreased from the fiscal year 2011 appropriation of \$45 million to \$27 million. RISS and law enforcement agencies nationwide have already felt the effects of this \$18 million reduction. On behalf of the hundreds of thousands of officers and public safety professionals RISS serves, we urge you to restore fiscal year 2013 RISS funding to \$45 million.

RISS has spent nearly 40 years building a valuable and cost-effective program that is used and trusted by officers and criminal justice professionals in all 50 States, the District of Columbia, U.S. territories, Australia, Canada, England, and New Zealand. RISS consists of six regional centers that tailor their services to meet the needs of their unique regions while working together on nationwide initiatives. RISS supports efforts against organized and violent crime, gang activity, drug activity, terrorism, human trafficking, identity theft, and other regional priorities, while promoting officer safety. The support provided by RISS has enabled law enforcement and public safety agencies to increase their success exponentially.

RISS offers law enforcement agencies and officers full-service delivery, from the beginning of an investigation to the ultimate prosecution and conviction of criminals. An officer can query intelligence databases, retrieve information from investigative systems, solicit assistance from research staff, utilize surveillance equipment, receive training, and use analytical staff to help prosecute criminals. Law enforcement agencies and officers rely on RISS for its diverse and far-reaching services and programs. Without access to these services, thousands of law enforcement agencies and hundreds of investigations will suffer.

RISS has been at the forefront in providing resources to enhance officer safety. More than 19,000 law enforcement officers have died serving our Nation. The RISS Officer Safety Event Deconfliction System (RISSafe) is an essential component to helping ensure that our officers are safe. RISSafe stores and maintains data on planned law enforcement events, with the goal of identifying and alerting affected agencies and officers of potential conflicts impacting law enforcement efforts. RISSafe is the only comprehensive and nationwide deconfliction system that is accessible on a 24/7/365 basis and available to all law enforcement agencies.

Since RISSafe's inception in 2008, more than 456,800 operations have been entered. Of those operations, 32.5 percent, or 148,646, have resulted in an identified conflict. Currently, 19 RISSafe Watch Centers are operational, 13 of which are operated by organizations other than RISS. These organizations have invested resources to support this critical officer safety program. Many agencies have adopted internal policies mandating the use of RISSafe. RISSafe continues to proliferate throughout the country, with demand increasing each day. It is impossible to put a cost to the number of officers RISSafe has already prevented from harm or, worse, death.

The RISS Officer Safety Web site was deployed in March 2011 and has been visited more than 13,000 times. The Web site serves as a nationwide repository for issues related to officer safety, such as concealments, hidden weapons, armed and dangerous threats, videos, special reports, and training. RISSafe and the RISS Officer Safety Web site are two important components of the U.S. Attorney General's Law Enforcement Officer Safety Initiative, along with VALOR and the Bulletproof Vest Initiative. Efforts are underway to bidirectionally interconnect the secure VALOR Web site with the RISS Officer Safety Web site. RISS also provides officer

safety training and develops and distributes publications about emerging threats, such as the Sovereign Citizens Movement special research report. With more than 800,000 law enforcement officers across the country, more support to ensure their safety is essential.

RISS provides a full complement of investigative support services, including analysis, investigative and research support, equipment, training, publications development, field services support, and technical assistance. Since 2000, RISS has assisted in training more than 668,000 individuals, conducted more than 326,000 on-site visits, loaned almost 57,000 pieces of equipment, and produced more than 290,000 analytical products. These statistics show how RISS is impacting law enforcement efforts, but the real success stories come directly from agencies and officers. For example, RISS staff provided support in a child pornography case involving digital forensics analysis. The collection of pornography discovered was one of the largest, with more than 100,000 images. With RISS's help, the case led to an 18-year sentence.

On January 8, 2011, United States Representative Gabrielle Giffords hosted a "Congress on Your Corner" gathering in Tucson, Arizona, to talk with her constituents. As the event began, a gunman entered the crowd and shot Representative Giffords. The gunman turned on the crowd, killing 6 individuals and seriously wounding 12 others. The shooting was recorded on video by a store security camera. There was an urgent need to locate an audio/video analyst to clarify the still photos taken from the video surveillance to determine whether an accomplice was at large. RISS was contacted to assist in this effort. The results of the RISS analyst's work enabled law enforcement to close a potential lead, saving valuable law enforcement time and resources.

The same types of successes are happening in jurisdictions across the country. Since 2000, agencies utilizing RISS's services and resources made more than 57,360 arrests and seized more than \$942.5 million in narcotics, property, and currency. RISS is an excellent return on investment for our country. All law enforcement and public safety entities are facing tightened budgets and limited resources. RISS helps augment law enforcement efforts. A Pennsylvania police officer said, "RISS offers services and support that law enforcement cannot obtain anywhere else. Analytical products, equipment loans, and training are important tools for law enforcement. Connectivity to RISSNET is absolutely critical to solving multijurisdictional crimes."

Historically, law enforcement agencies have faced obstacles related to information sharing, communications, and technology. Many problems stemmed from the fact that although these agencies individually held pieces of information, they lacked a mechanism to securely collect and exchange information. Consequently, law enforcement's response to criminal activity was often fragmented, duplicative, and limited. Since the inception of the RISSNET in 1997; however, many of these obstacles have been resolved. RISSNET is a secure Sensitive But Unclassified (SBU) law enforcement information sharing cloud provider. RISSNET provides access to millions of pieces of data; offers bidirectional information sharing; and connects disparate State, local, and Federal systems. Agencies can easily connect to RISSNET, securely share information and intelligence, and query multiple systems simultaneously.

Our Nation's public safety mission requires an interoperable information-sharing environment to proactively solve crimes. RISSNET is a critical component in meeting this need. RISSNET also serves as the secure communications infrastructure for other critical resources and investigative tools. Currently, 86 systems are connected or pending connection to RISSNET and more than 400 resources are available via RISSNET to authorized users; the owners of these resources rely on RISSNET for its secure infrastructure. By connecting agencies and systems to RISSNET, rather than funding the build-out of new stand-alone systems, hundreds of millions of dollars are saved and millions of data records are easily and quickly accessible by law enforcement. Examples of RISSNET resources include the RISS Criminal Intelligence Databases (RISSIntel), RISSafe, the RISS National Gang Program (RISSGang), the RISS Automated Trusted Information Exchange (ATIX), the RISSLeads Investigative Bulletin Board, the RISSLinks data-visualization and link-analysis tool, the RISS Center Web sites, and secure email.

The RISSIntel user interface provides for real-time, online federated search of 15 RISS partner intelligence databases, including State systems and CalGang, and does not require the RISSNET user to have a separate user account with the respective partner systems. In fiscal year 2011, RISSIntel contained more than 3.1 million intelligence records and users made almost 4 million inquiries. These records include individuals, organizations, and associates suspected of involvement in criminal activity, as well as locations, vehicles, weapons, and telephone numbers. The interaction between RISSafe and RISSIntel provides comprehensive officer safety event and subject deconfliction services.

RISSGang is the only comprehensive gang resource that offers a criminal intelligence database, a Web site, a secure bulletin board, and specific news and publications. The RISSGang database provides access to gang information, including suspects, organizations, weapons, photographs, and graffiti. RISSGang provides for a federated search, including CalGang. RISS is connecting other gang databases to RISSNET. RISS ATIX is a communications and information sharing capability that enables law enforcement, public safety, and private sector entities to share terrorism and homeland security information in a secure, real-time environment. RISS ATIX includes discipline-specific Web pages, a secure bulletin board, document library, and email.

RISSLeads provides authorized law enforcement officers with the ability to post information regarding cases, investigative leads, or other law enforcement issues. Authorized users are able to view and respond to posts. Connecting law enforcement officers across jurisdictional boundaries is crucial in detecting and apprehending today's mobile and sophisticated criminals.

Each RISS Center maintains a Web site to provide users with easy access to RISSIntel and other resources, such as the National Railroad Trespasser Database, the Cold Case Database, the Forensic Accounting Database, and the Pseudoephedrine Violator Tracking System. Because of demand from agencies and officers, RISS has expanded its Pawnshop Database nationwide. The number of investigative records available through these different systems exceeds 28 million.

RISSNET is 1 of 4 SBU networks participating in the Assured SBU Interoperability Initiative under the auspices of the White House and the Office of the Program Manager, Information Sharing Environment (PM-ISE). The goal is to provide simplified sign-on and access to a variety of system-to-system enhancements within an interoperable and protected SBU environment for local, State, Federal, and tribal law enforcement, regardless of agency ownership of the individual network. RISS is the only non-Federal partner providing the critical State, local, and tribal law enforcement piece essential to the Nation's information sharing environment. RISS is at the forefront in providing federated access and simplified sign-on. The Federal Bureau of Investigation Law Enforcement Online users, the Chicago Police Department users, and the Pennsylvania Justice Network users access RISSNET resources via Federated Identity.

RISS continuously seeks and is sought out by others to enable new information sharing partnerships that leverage its secure SBU information sharing capabilities. Most recently, several State Medicaid Fraud Control Units (MFCUs) began pursuing the use of RISSNET to securely share information, strategies, best practices, lessons learned, and other information to help in their detection and prosecution efforts. Ultimately, this project has the potential to support Medicare and other healthcare fraud investigations and information sharing efforts. In addition, RISS supports the Nationwide Suspicious Activity Reporting Initiative, the National Virtual Pointer System, the National Center for Missing & Exploited Children, the National Gang Intelligence Center, the United States Secret Service, and the United States Attorneys' Offices. RISS continues to connect fusion centers to RISSNET, integrate RISS services and tools into fusion center operations, and provide training. RISS is supported by the International Association of Chiefs of Police, the National Sheriffs' Association, the National Narcotic Officers' Associations' Coalition, and the National Alliance of Gang Investigators Associations.

It is respectfully requested that the Congress restore fiscal year 2013 funding for RISS to the fiscal year 2011 amount of \$45 million so that this essential information sharing and public safety program can continue to serve our Nation. Inadequate funding and support for RISS could cost lives, hinder investigations, and impact the safety of our communities. It would be counterproductive to require local and State RISS members to self-fund match requirements, as well as to reduce the amount of Bureau of Justice Assistance discretionary funding. Agencies require more, not less, funding to fight the Nation's crime problem. RISS is unable to make up the decrease in funding that a match would cause, and it has no revenue source of its own. Cutting the RISS appropriation by requiring a match should not be imposed on the program.

RISS provides resources and capabilities to share critical information nationwide, serves as a secure platform for other criminal justice entities, and provides investigative support services that, in many cases, agencies would not otherwise receive. RISS is essential in creating a safer working environment for our Nation's law enforcement. Appropriate funding will enable RISS to continue effectively serving the criminal justice community. For additional information on the RISS Program, visit www.riss.net. RISS appreciates the support this committee has continuously provided to the RISS Program and is grateful to provide this testimony.

PREPARED STATEMENT OF REBECCA UNDERWOOD—PARENT/GUARDIAN/ADVOCATE

I wish to express my appreciation to the Senate Appropriations Committee Subcommittee on Commerce, Justice, Science, and Related Agencies for this opportunity to submit written testimony for the record of the hearing held on Wednesday, March 8, 2012, to consider fiscal year 2013 appropriations for the Department of Justice (DOJ).

As noted during Attorney General Eric Holder's testimony and subsequent questions from the subcommittee members on Wednesday, March 8, 2012, budget realities exist. Dollars are precious. The Civil Rights Division has requested additional funds to strengthen civil rights enforcement, including enforcement of the Civil Rights of Institutionalized Persons Act (CRIPA) as part of a Vulnerable People Priority Goal. I write to express my deep concern regarding DOJ activities under CRIPA/Americans with Disabilities Act (ADA)/*Olmstead* enforcement resulting in the closure of intermediate-care facilities for individuals with severe and profound developmental/intellectual disabilities against resident's choice. Federal tax dollars are currently being spent by DOJ under the guise of "civil rights enforcement" to undermine and dismantle a system of care for our most vulnerable citizens, those with severe and profound developmental/intellectual disabilities. In the process of "civil rights enforcement", DOJ, due to blatant disregard for the individual choice requirements of ADA, is overriding individual civil rights.

My interest in this issue is as the mother and co-legal guardian of our son who due to profound neurological impairment occurring at birth, has functional abilities of a 4–12-week-old infant despite his 32 chronological years. In addition to the profound neurological impairment due to subarachnoid hemorrhages, pulmonary hemorrhages impaired his respiratory functional status. He requires and receives 24/7 intensive skilled nursing care in a State-owned and -operated Medicaid-certified intermediate care facility for individuals with developmental disabilities (ICF/DD). This placement was not our only choice when we could no longer provide the intensive care our son requires, but it definitely was and continues to be the best choice for our son. He has thrived in this setting beyond our wildest expectations. Our son will never walk, talk, roll over, be able to hold his own head up, speak a word or call me "momma" or even recognize me as his mother. He is medically fragile. His care needs are intensive. He is appropriately served by a highly trained, specialized team will be difficult and extremely costly to duplicate in a smaller setting that DOJ favors.

DOJ policies and actions work to eliminate the safe homes for vulnerable people like my son. Claiming that Medicaid-certified facilities (ICFs/DD) are "isolated" and "segregated", the Civil Rights Division commences investigations aimed at closure and elimination of this option of care for our most vulnerable loved ones.

Civil Rights Enforcement in Wisconsin

DOJ descended upon Wisconsin to conduct "investigations" of 2 of our 3 State-owned and -operated facilities for people with developmental disabilities, including our son's facility, under authority of CRIPA. Surprisingly, a whole year passed following the "investigations" without word from DOJ as to their findings despite the fact that DOJ had committed substantial resources to wide-ranging investigations of two major facilities—investigations that supposedly met the criteria for activity commencement under CRIPA. It was later learned that one of the initial DOJ consultants had written a favorable report of the conditions within our son's facility. The report never surfaced and this consultant has never been used by the DOJ again.

DOJ then requested to return to "assess progress" since the previous visit—but with new consultants. These consultants produced the obligatory derogatory report alleging egregious and flagrant violations of residents' civil rights. DOJ proposed—Wisconsin rejected—that the residents be transitioned out. Clearly DOJ's goal was not merely to correct what DOJ defined as egregious and flagrant conditions and violations but to actually shut these facilities down.

Then, as now, parents and guardians were left out of the "investigations". As one attorney from the Civil Rights Division wrote regarding the request of Wisconsin families to be consulted and involved in the investigations:

"There are many committed and commendable private organizations and individuals that have an important role in overseeing the care residents in institutions receive. However, their 'participation' and 'representation' in investigative tours is 'inappropriate.'"

Involving the parents and legal guardians of residents was "inappropriate" in the eyes of the DOJ. Parents were denied the right by the DOJ's Civil Rights Division

to be involved in the investigations of the alleged violations of their children's civil rights.

We were stymied for years in our attempts to learn the nature of the complaints that prompted this wide-ranging investigation. It was not complaints from residents and their families, but instead from outside sources—agencies and organizations that continue to this day to advocate against the option of Medicaid-certified and -licensed congregate care facilities.

History appears to be repeating itself in how DOJ conducts CRIPA/ADA/*Olmstead* investigations. Bolstered by advocacy organizations that are also using Federal funds to work to undermine and effect the elimination of the option of Medicaid-certified congregate care settings for our most vulnerable citizens, DOJ is now seeking additional funds for the Civil Rights Division to strengthen civil rights enforcement as part of the Vulnerable People Priority Goal.

The DOJ's Civil Rights Division is moving fast and furious in States across the country declaring that the civil rights of vulnerable persons who reside in ICFs/DD are being violated even though the legal guardians have carefully chosen an ICF/DD setting after much careful deliberation.

Misguided DOJ ADA/*Olmstead* enforcement policies which ignore and disregard individual choice regarding residential services are affecting and harming thousands of vulnerable people with severe and profound disabilities who function as infants and toddlers despite having the chronological age of adults.

The United States Supreme Court Justices were quite clear on the issue of individual choice in the *Olmstead* decision:

"We emphasize that nothing in the ADA or its implementing regulations condones termination of institutional settings for persons unable to handle to benefit from community settings . . . Nor is there any Federal requirement that community-based treatment be imposed on patients who do not desire it."

Civil Rights Enforcement in Georgia

In October 2010, DOJ reached a settlement agreement with the State of Georgia by which all individuals with developmental disabilities are required to transition out of their Medicaid-certified facilities against their choice. Families and legal guardians were not consulted or allowed to be involved in the development of the agreement which is mandating the relocation of their vulnerable family members, individuals with the most severe and profound levels of developmental and intellectual disabilities. They are "vulnerable people."

When the settlement agreement with the State of Georgia was announced, the Assistant Attorney General for Civil Rights referred to the agreement as a "template for *Olmstead* enforcement activities across the country". What this said to families across the country is that DOJ intends to force the closure of all ICFs/DD and force residents out against their choice into community-based settings.

I support the option of community-based residential settings and services for those who choose and can benefit from those settings. However, forced transitions to community-based services and settings against choice, under the guise of "*Olmstead* enforcement", are in complete opposition to the actual ruling of the United States Supreme Court in *Olmstead*.

Civil Rights Enforcement in Arkansas

Following a multiyear CRIPA/ADA civil rights investigation, Arkansas defended the Conway Human Development Center in Conway, Arkansas, at trial in Federal court in September 2010. The cost to Arkansas families and taxpayers to prevail in court was in excess of \$4 million. The costs incurred by DOJ in this grand defeat and borne by Federal taxpayers in this misguided litigation is unknown.

Federal District Court Judge Leon Holmes, in his ruling dismissing the case, noted DOJ's complete disregard for family and guardian input:

"Most lawsuits are brought by persons who believe their rights have been violated. Not this one . . . All or nearly all of these residents have parents or guardians who have the power to assert the legal rights of their children or wards. Those parents and guardians, so far as the record shows, oppose the claims of the United States. Thus the United States [Department of Justice] is in the odd position of asserting that certain persons' rights have been and are being violated while those persons—through their parents and guardians disagree."

Civil Rights Enforcement in Virginia

A settlement agreement has recently been reached between the DOJ Civil Rights Division and the Commonwealth of Virginia. If this settlement agreement is accepted by the Court, closure of ICFs/DD will result. Families, not permitted an oppor-

tunity for input, have been forced to file a motion to intervene to protect their loved ones from being displaced.

In Virginia, as in Georgia and my State of Wisconsin, parents and legal guardians who expressly opposed closure were ignored. The blatant disregard by the DOJ for the choice requirements of *Olmstead* cannot be allowed to continue.

Conclusion and Request

In ruling in *Olmstead*, the Supreme Court Justices interpreted the ADA to require choice. Current activities of DOJ, operating out of public view and disregarding family and guardian involvement, to coerce States to cease operating programs (ICFs/DD) which provide life sustaining services for persons with lifelong, severe intellectual disabilities are not in the public interest. In light of budget realities we must ask if the best use of public dollars is the deinstitutionalization activities being carried out by the DOJ which run counter to the choice requirement of *Olmstead* which DOJ claims to be “enforcing” while displacing affected vulnerable people from their life sustaining services.

I refuse to believe that it was the intention of the Supreme Court Justices in the *Olmstead* decision that DOJ would time after time, in State after State, decide that the civil rights of each and every resident of a State-operated, Medicaid-certified ICF/DD are being violated simply because the resident or their legal representative has not chosen community-based services. What is choice if there is no choice?

I respectfully request the subcommittee to provide oversight and accountability of the devastating activities of the DOJ by which States are coerced into closing ICFs/DD, forcing vulnerable persons to be dislocated from their life-sustaining services. Please discontinue funding deinstitutionalization programs of the DOJ Civil Rights Division which, through a misguided and harmful agenda, denies choice, and is undermining and working to effect the elimination of a life sustaining option of care under the guise of “civil rights enforcement”.

PREPARED STATEMENT OF SEARCH—THE NATIONAL CONSORTIUM FOR JUSTICE INFORMATION AND STATISTICS

INTRODUCTION

I am Kelly Harbitter, Programs and Policy Advisor for SEARCH. I write to you today on the Department of Justice (DOJ) funding to be provided for in the fiscal year 2013 Commerce, Justice, Science, and Related Agencies appropriations bill. SEARCH recommends that the National Criminal History Improvement Program (NCHIP) receive appropriations of \$25 million.

SEARCH is a State criminal justice support organization created by the States and comprised of Governors’ appointees from each State. Each State pays dues annually. SEARCH’s mission is to promote the effective use of information and identification technology by justice agencies nationwide. SEARCH has a long-standing partnership with DOJ to promote information sharing, as well as to protect personal privacy within the criminal justice community. It is from this perspective—and on behalf of these State partners—that I would like to address the level of NCHIP funding as set forth in the President’s proposed budget released on February 13, 2012.

As you know, NCHIP received an allocation of \$5 million in the recent budget proposal. SEARCH recognizes that these are difficult budgetary times, and as such, the States have been judicious in their investment in criminal history improvement over the past several years. But the demand for accurate, complete, and timely criminal records continues to grow at a rapid pace, and there should be a priority placed on NCHIP funding. Indeed, despite the single-digit budget allocations, State applications for NCHIP funding over the last several years have been nearly five times the budgeted amounts. SEARCH recommends that NCHIP receive appropriations at a level considerably higher than the President’s proposal, at \$25 million rather than \$5 million. This level of funding reflects the States’ identified needs and will enable States and territories to continue to improve the quality, timeliness, and accessibility of criminal history records.

NATIONAL CRIMINAL HISTORY IMPROVEMENT PROGRAM

The NCHIP program was first initiated in 1995, and has been extraordinarily successful in helping States to improve the accuracy, reliability, and completeness of their automated criminal history record systems.

DOJ administers NCHIP through the Bureau of Justice Statistics (BJS) in DOJ’s Office of Justice Programs (OJP). NCHIP responds to a DOJ objective to enhance

the criminal justice capabilities of State governments by improving the accuracy, completeness, and timeliness of criminal history records. These State systems support Federal records systems, including the Federal Bureau of Investigation (FBI) Interstate Identification Index (III).¹ III consists of records, 70 percent of which are maintained by the States and only 30 percent are maintained by the FBI.²

BJS, with limited funding, has been widely recognized for its extraordinary efficiency, effectiveness and accomplishments in the NCHIP program. The last two Government Accountability Office (GAO) reports on NCHIP (in 2004 and 2008) highlighted the program's continued success in meeting its goals and the significant progress States made toward automating State criminal history records and making them accessible nationally.³ The reports also noted BJS' adherence and enforcement to the important oversight issues the Congress is concerned with regarding grant programs today. Indeed, the States—including the State repositories—have devoted massive efforts and resources over many years toward building automated, criminal history record databases that are accurate, complete, and reliable. Notwithstanding the efforts of BJS and the States, there continue to be significant shortfalls in arrest reporting; in disposition reporting; and in accuracy and data quality. Most significantly, approximately one-half of arrest records contained in the FBI III database are missing dispositions.⁴

NATIONAL CRIMINAL HISTORY IMPROVEMENT PROGRAM FUNDING

The President's fiscal year 2013 budget would provide \$5 million for NCHIP. This is not a sufficient amount to promote the program's success.

Despite NCHIP's noted success, this gradual reduction in funding has adversely affected the program. NCHIP has been so significantly underfunded that some States no longer receive any allocation from the NCHIP grants. A pattern of underfunding State efforts to maintain effective criminal history records reverberates across the entire criminal justice system, not only in the individual States. Because State criminal history records are the primary source for the FBI III database, any constraints on the States weakens the ability of many Federal programs to identify threats and keep our Nation safe.

In fact, the accuracy, completeness, and reliability of the Nation's criminal history record system has a more important and comprehensive impact today than ever before, including for law enforcement investigations; for officer safety; for sentencing and other criminal justice purposes; for expungement and other re-entry strategies; for homeland security and antiterrorism purposes; for public noncriminal justice purposes, including security clearances and employment suitability; for private sector risk management purposes; and for research and statistical programs that provide critical guidance for justice assistance decisions and for shaping law and policy. Without an adequate level of funding for the States, the quality of criminal records available nationwide will be negatively impacted.

STATE SUCCESSES WITH NATIONAL CRIMINAL HISTORY IMPROVEMENT PROGRAM FUNDING

Virginia.—With NCHIP funds, the Virginia State Police personnel provide electronic access to criminal history records on-site at gun shows. This ensures rapid response to the National Instant Criminal Background Check System (NICS) and prevents the transfer of firearms to prohibited persons. NCHIP funds have also furthered efforts in Virginia to improve the completeness and accuracy of computerized criminal history files and the Court Automated Information System. Between October 2010 and December 2011, the completion rate for missing dispositions reached approximately 95 percent. Virginia plans to use NCHIP funds to achieve additional goals to research, resolve, and enter as many missing final court dispositions associated with Virginia criminal history records as possible, as well as assist with the ever-increasing problem of juvenile arrests and dispositions.

¹The Interstate Identification Index is the national system designed to provide automated criminal history record information. The III stores the criminal history records of Federal offenders and records of offenders submitted by all States and territories.

²*Survey of State Criminal History Information Systems 2010*, Bureau of Justice Statistics, U.S. Department of Justice, Office of Justice Programs (November 2011) (available at: <https://www.ncjrs.gov/pdffiles1/bjs/grants/237253.pdf>).

³See GAO reports (available at: <http://www.gao.gov/new.items/d04364.pdf>; <http://www.gao.gov/new.items/d08898r.pdf>).

⁴The Attorney General's Report on Criminal History Background Checks, United States Department of Justice, section III.6, p. 18 (June 2006) (available at: http://www.justice.gov/olp/ag_bgchecks_report.pdf).

Michigan.—Michigan has used NCHIP grants since the program began to enhance its automated criminal history record system and integrate it with the Automated Fingerprint Identification System (AFIS). NCHIP also funded a number of data quality studies and improvement projects to improve the completeness, accuracy, and disposition reporting associated with Michigan criminal history records. The State has also significantly reduced disposition backlogs. By mid-2000, Michigan had surpassed the 95-percent goal of complete, accurate, and timely electronic reporting of criminal dispositions (established by The Crime Control Act of 1990) for adult felonies. Michigan continues its success with initiatives with the courts and prosecutor's offices for enhanced interfaces to the criminal history.

New York.—New York has used NCHIP funds since the beginning of the program to support major initiatives to modernize and vastly improve the ability to provide critical information services to New York's State and local criminal justice agencies. One of the most important achievements has been to solve the problem of missing dispositions in the criminal history repository. Working with the courts, the State repository agency identified system and database problems that contributed to unresolved arrest events. The attention to these problems resulted in a completion rate for missing dispositions of greater than 92 percent. NCHIP funds also supported enhancements to domestic incident reporting practices in New York. Law enforcement officers, preparing to execute a warrant at a suspect's home, benefit from knowing if the suspect has any criminal history in domestic violence. These funds were also used to develop the New York State Integrated Justice portal, a single access point for public safety practitioners to access the State's justice systems and data.

Nevada.—The Nevada Department of Public Safety was able to clear a backlog of more than 300,000 court dispositions with NCHIP funding. The Department says this monumental task could not have been completed without NCHIP funding.

Florida.—In Florida, citizens and visitors to the State are safer today thanks to the productive use of NCHIP funding. Since 1995, Florida's criminal justice community has used NCHIP funding to make many major improvements in the collection and sharing of information in support of public safety. Among the most significant accomplishments supported by NCHIP are:

- creation of a secure statewide Criminal Justice Network for information sharing among criminal justice agencies;
- automation of court disposition reporting (the rate of adult felony dispositions has been improved from around 60 percent in 1995 to more than 75 percent at the end of 2011 for all felony arrests dating back to 1911);
- background screening for volunteers and employees working with children, the elderly and disabled; and
- enhancement of information sharing about the State's more than 58,000 sexual offenders and predators.

Alaska.—Alaska has used NCHIP funding since 1996 for:

- independent repository audits;
- implementing automated interfaces and charge tracking systems;
- developing uniform offense citations table;
- addressing missing dispositions critical to NICS, recidivism studies, and the repository;
- implementing Live Scan stations, (which raised compliance rates from 56 percent to more than 90 percent for mandatory fingerprinting at the Anchorage courthouse during the 2-year pilot project); and
- the electronic sharing of automated court criminal records and more. Undertaking these projects would not have been possible without the help from NCHIP.

Hawaii.—In Hawaii, NCHIP funding has been indispensable to laying the foundation for the State's fully integrated justice information sharing system. The Hawaii Integrated Justice Information Sharing (HIJIS) was designed to build statewide information sharing capabilities across the whole of the justice and public safety enterprise, to facilitate information exchange with Federal, State, county agencies, and to leverage national information sharing standards and best practices. In addition, among the many activities that Hawaii's NCHIP funding has allowed the State to accomplish are the following:

- Design, develop, and implement CJIS-Hawaii, the enhanced statewide criminal history record information system;
- Partner with the State court system to share real-time disposition and court status data;
- Enable CJIS-Hawaii to share information with the national NCIC Protection Order and National Sex Offender Registry systems;
- Implement a statewide integrated booking and mugshot system;

- Deploy livescans at all county police departments and Sheriff's Offices, accomplishing a paperless and electronic process end to end; and
- Design, develop, and implement a "lights out" automated identification process for the State so that response times are instantaneous and based on positive identification.

CONCLUSION

Congressional support through the NCHIP program to the State criminal history repositories is vital. The Federal investment can be leveraged many times over by contributing to the ability of State and local criminal justice agencies to provide timely, accurate, and compatible information to Federal programs such as III.

On behalf of SEARCH, its Governors' appointees, and the thousands of criminal justice officials who participate in the SEARCH network and who benefit from SEARCH's efforts, I thank you for your consideration.

PREPARED STATEMENT OF THE SEA GRANT ASSOCIATION

Madam Chair and members of the subcommittee, my name is Jonathan Pennock and I am the director of the University of New Hampshire Marine Program and the New Hampshire Sea Grant College Program. I am submitting this testimony in my capacity as president of the Sea Grant Association (SGA). SGA appreciates very much the support the Congress has provided the National Sea Grant College Program over the years. Because of that support, Sea Grant has been able to deliver a number of quantifiable benefits to the residents of our ocean and coastal communities which are documented below. In that light, to continue to provide similar expected benefits to coastal residents in the future, the SGA recommends that NOAA be funded at the level recommended by the Friends of NOAA Coalition (\$5.3 billion) and that the National Sea Grant College Program within NOAA be funded in fiscal year 2013 at \$69 million.

Recognizing the constraints in the budget process, this amount is \$18.5 million less than the authorized level for fiscal year 2013. While it represents an increase of \$6 million more than the amount appropriated in the fiscal year 2012 appropriations act, it is consistent with guidance provided in the conference report that accompanied the fiscal year 2012 appropriation that said: "the Committee recognizes the important role the Sea Grant program plays in connecting coastal and Great Lakes communities with practical research and results, and encourages the growth of this program in future budget requests."

For more than 40 years, the National Sea Grant College program has worked to create and maintain a healthy coastal environment and economy. The Sea Grant network includes more than 30 programs based at top universities in every coastal and Great Lakes State, Puerto Rico, and Guam. The programs of the Sea Grant network work together to help citizens understand, conserve, and better utilize America's coastal, ocean and Great Lakes resources. A partnership between universities and the Federal Government's National Oceanic and Atmospheric Administration (NOAA), Sea Grant directs Federal resources to pressing problems in local communities. By drawing on the experience of more than 3,000 scientists, engineers, public outreach experts, educators and students from more than 300 institutions, Sea Grant is able to make an impact at local and State levels, and serve as a powerful national force for change.

Sea Grant invests in high-priority research, addressing issues such as population growth and development in coastal communities; preparation and response to hurricanes, coastal storms, and tsunamis; understanding our interactions with the marine environment; fish and shellfish farming; seafood safety; and fisheries management. The results of this research are shared with the public through Sea Grant's integrated outreach program, which brings together the collective expertise of on-the-ground extension agents, educators, and communications specialists. The goal is to ensure that vital research results are shared with those who need it most and in ways that are timely, relevant, and meaningful.

THE ECONOMIC IMPORTANCE OF THE NATION'S COASTAL COMMUNITIES

More than one-half of the Nation's population lives in coastal watershed counties and this coastal population has increased by nearly 51 million people over the past 40 years. It is expected to grow by another 10 percent in the next decade. The coastal economy contributed \$8.3 trillion to the Nation's Gross Domestic Product resulting in 66 million jobs and wages worth an estimated \$3.4 trillion (NOAA 2009). Much of this economic activity comes from commercial fishing (estimated at \$4 bil-

lion per year and 1 million jobs), recreational fishing (estimated at \$73 billion per year and supporting more than 320,000 jobs), our Nation's seaports (\$1.9 trillion worth of imports came through U.S. ports in 2010 supporting an estimated 13 million jobs), and coastal tourism (\$531 billion in 2010). Additionally, more than 50 percent of the total energy produced domestically occurred in coastal States including natural gas production, electricity generation, and oil and gas production. Coastal areas are providing opportunities for renewable energy development with projects that seek to extract energy from the movement of ocean water due to tides, currents, or waves; from the temperature differential between hot and cold ocean water; and from strong winds in offshore ocean environments.

SEA GRANT'S CONTRIBUTIONS TO THE ECONOMIC HEALTH OF THE NATION'S COASTAL COMMUNITIES

According to data collected for the 2-year (2009 and 2010) period by the National Sea Grant Office within NOAA, the Sea Grant program delivered the following benefits to the Nation:

- Nearly \$243 million in direct economic benefits to the Nation, which represents nearly a 4 to 1 return on the Federal investment;
- An estimated additional \$146 million in other Federal, State, and nongovernmental resources was leveraged for research, extension, and other services to support the ocean and coastal enterprise;
- 144 new businesses were created, 1,271 businesses were retained, and more than 8,100 jobs were created or retained due to Sea Grant efforts;
- 768 communities across the Nation have adopted more sustainable economic or environmental development practices and policies;
- More than 340 communities adopted hazard resiliency practices with Sea Grant assistance to make them better prepared to cope with or respond to hazardous coastal events;
- More than 5,000 individuals or businesses received new certifications in hazard analysis and critical control point handling of seafood products, improving the safety of seafood consumption by Americans across the country;
- More than 40,000 acres of degraded ecosystems were restored as a result of Sea Grant activities; and
- Sea Grant supported more than 1,700 undergraduate and more than 1,400 graduate students, and some 800,000 K–12 students were reached with information about marine and Great Lakes science and resources.

The National Sea Grant College program is one of the very few nationally competitive grant programs that can demonstrate this kind of real impact at the local, State, and national levels.

SEA GRANT WILL CONTINUE TO ADDRESS THE ECONOMIC AND ENVIRONMENTAL POSITION OF AMERICA'S COASTAL COMMUNITIES

Since its creation in 1966, the National Sea Grant College Program has been at the forefront of addressing economic opportunities and environmental issues facing coastal communities through its research and outreach efforts. For every Federal dollar provided for this program, between one and two additional non-Federal dollars are contributed by non-Federal entities, thus leveraging and extending the impact of the Federal investment. With additional funding and guidance from the Congress, Sea Grant could bolster its network resources and focus on preparing communities to better prepare for and recover from extreme events such as coastal storms or oils spills, or reversing the trend of working waterfront enterprise losses (such as fish harvesting/processing facilities and marinas), and advancing the coastal tourism industry in sustainable ways.

Over the next 5 years, Sea Grant will concentrate effort in four areas:

- healthy coastal ecosystems;
- sustainable coastal development;
- a safe and sustainable seafood supply; and
- hazard resilience in coastal communities.

These four interrelated focus areas emerged from the NOAA and program's strategic planning process as areas of critical importance to the health and vitality of the Nation's coastal resources and communities. They respond to issues of major importance to NOAA, are consistent with the work of the NOAA coastal program integration effort, and are topical areas in which Sea Grant has made substantial contributions in the past and is positioned to make significant contributions in the future.

In each of the four focus areas, Sea Grant has identified goals to pursue and strategies designed to take advantage of its strengths in integrated research, outreach,

and education, and its established presence in coastal communities. Understanding relationships and synergies across focus areas is vital to achieving the focus area goals. Sea Grant is one of many partners working to address these complex and interrelated issues. Understanding how activities in one area can support and complement other activities, and using partnerships to accomplish shared goals, are strategies inherent to Sea Grant, and will be central to achieving the goals outlined in the NOAA and program's strategic plan.

America must use its coastal resources wisely to sustain the health and productivity of coastal communities. With the requested Federal funding that will leverage significant State and local support, the National Sea Grant College Program will be uniquely positioned to continue its contributions to our coastal communities. As such, the Sea Grant Association requests \$69 million in Federal Sea Grant funding in fiscal year 2013.

Thank you for the opportunity to present these views. SGA would be happy to provide answer questions or provide additional information to the subcommittee.

PREPARED STATEMENT OF THE SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS

This written testimony is submitted on behalf of the Society for Industrial and Applied Mathematics (SIAM) to ask you to continue your support of the National Science Foundation (NSF) in fiscal year 2013 by providing NSF with \$7.373 billion. In particular, we urge you to provide the request level for key applied mathematics and computational science programs in the Division of Mathematical Sciences and the Office of Cyberinfrastructure.

We are submitting this written testimony for the record to the Subcommittee on Commerce, Justice, Science, and Related Agencies of the Committee on Appropriations of the U.S. Senate on behalf of the SIAM.

SIAM has approximately 13,000 members, including applied and computational mathematicians, computer scientists, numerical analysts, engineers, statisticians, and mathematics educators. They work in industrial and service organizations, universities, colleges, and Government agencies and laboratories all over the world. In addition, SIAM has almost 500 institutional members, including colleges, universities, corporations, and research organizations.

First, we would like to emphasize how much SIAM appreciates your subcommittee's continued leadership on and recognition of the critical role of the NSF and its support for mathematics, science, and engineering in enabling a strong U.S. economy, workforce, and society.

Today, we submit this testimony to ask you to continue your support of NSF in fiscal year 2013 and beyond. In particular, we request that you provide NSF with \$7.373 billion, the level requested for this agency in the President's fiscal year 2013 budget request.

As we are reminded every day, the Nation's economic strength, national security, and public health and welfare are being challenged in profound and unprecedented ways. Addressing these challenges requires that we confront fundamental scientific questions. Computational and applied mathematical sciences, the scientific disciplines that occupy SIAM members, are particularly critical to addressing U.S. competitiveness and security challenges across a broad array of fields: medicine, engineering, technology, biology, chemistry, computer science, and others.

SIAM recognizes the challenging fiscal situation, and notes that in the face of economic peril, Federal investments in mathematics, science, and engineering remain crucial as they power innovation and economic growth upon which our economy and fiscal health depend.

NATIONAL SCIENCE FOUNDATION

NSF provides essential Federal support for applied mathematics and computational science, including more than 60 percent of all Federal support for basic academic research in the mathematical sciences. Of particular importance to SIAM, NSF funding supports the development of new mathematical models and computational algorithms, which are critical to making substantial advances in such fields as climate modeling, energy technologies, genomics, analysis and control of risk, and nanotechnology. In addition, new techniques developed in mathematics and computing research often have direct application in industry. Modern life as we know it—from search engines like Google to the design of modern aircraft, from financial markets to medical imaging—would not be possible without the techniques developed by mathematicians and computational scientists. NSF also supports mathematics education at all levels, ensuring that the next generation of the U.S. work-

force is appropriately trained to participate in cutting-edge technological sectors and that students are attracted to careers in mathematics and computing.

Below are highlights of the main budgetary and programmatic components at NSF that support applied mathematics and computational science.

NATIONAL SCIENCE FOUNDATION DIVISION OF MATHEMATICAL SCIENCES

The NSF Division of Mathematical Sciences (DMS) in the Directorate for Mathematical and Physical Sciences (MPS) provides the core support for all mathematical sciences. DMS supports areas such as algebra, analysis, applied mathematics, combinatorics, computational mathematics, foundations, geometry, mathematical biology, number theory, probability, statistics, and topology. In addition, DMS supports national mathematical science research institutes; infrastructure, including workshops, conferences, and equipment; and postdoctoral, graduate, and undergraduate training opportunities.

The activities supported by DMS and performed by SIAM members, such as modeling, analysis, algorithms, and simulation, provide new ways of obtaining insight into the nature of complex phenomena, such as the power grid, software for military applications, the human body, and energy-efficient building systems. SIAM strongly urges you to provide DMS with the budget request level of \$245 million to enable sustained investment by NSF in critical mathematical research and related mathematical education and workforce development programs.

In particular, investment in DMS is critical because of the foundational and cross-cutting role that mathematics and computational science play in sustaining the Nation's economic competitiveness and national security, and in making substantial advances on societal challenges such as energy, the environment, and public health. NSF, with its support of a broad range of scientific areas, plays an important role in bringing U.S. expertise together in interdisciplinary initiatives that bear on these challenges. DMS has traditionally played a central role in such cross-NSF efforts, with programs supporting the interface of mathematics with a variety of other fields, such as geosciences, biology, cybersecurity, and solar energy.

SIAM supports DMS's participation in the several new NSF-wide initiatives, including Cyber-Enabled Materials and Manufacturing for Smart Systems (CEMMSS), which would support partnerships between mathematical scientists, computer scientists, physical scientists, and engineers to develop computational tools for transforming materials discovery to power our manufacturing base and help advance myriad technologies. In addition, SIAM continues to support DMS's role in enabling interdisciplinary work through participation in the Research at the Interface of Biological, Mathematical, and Physical Sciences (BioMaPS) initiative, which supports research in mathematical and computational biology to expand our understanding of biological processes and inspire potentially transformative new technologies for manufacturing and energy.

NATIONAL SCIENCE FOUNDATION OFFICE OF CYBERINFRASTRUCTURE

Work in applied mathematics and computational science is critical to enabling effective use of the rapid advances in information technology and cyberinfrastructure. Programs in the NSF Office of Cyberinfrastructure (OCI) focus on providing research communities access to advanced computing capabilities to convert data to knowledge and increase our understanding through computational simulation and prediction.

SIAM strongly urges you to provide OCI with the budget request level of \$218.3 million to invest in the computational resources and science needed to solve complex science and engineering problems. In addition, SIAM strongly endorses OCI's efforts to take on the role of steward for computational science across NSF, strengthening NSF support for relevant activities and driving universities to improve their research and education programs in this multidisciplinary area.

The programs in OCI that support work on software and applications for the next generation of supercomputers and other cyberinfrastructure systems are very important to enable effective use of advances in hardware, to facilitate applications that tackle key scientific questions, and to better understand increasingly complex software systems. SIAM strongly supports the proposed increase in funding for OCI data activities, including data infrastructure, tools, and repositories. The explosion in data available to scientists from advances in experimental equipment, simulation techniques, and computer power is well known, and applied mathematics has an important role to play in developing the methods and tools to translate this shower of numbers into new knowledge.

SIAM continues to support the agency-wide initiative Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21). This program works to de-

velop comprehensive, integrated, sustainable, and secure cyberinfrastructure to accelerate research and capabilities in computational and data-intensive science and engineering.

SUPPORTING THE PIPELINE OF MATHEMATICIANS AND SCIENTISTS

Investing in the education and development of young scientists and engineers is a critical role of NSF and a major step the Federal Government can take to ensure the future prosperity and welfare of the United States. Currently, the economic situation is negatively affecting the job opportunities for young mathematicians at universities, companies, and other research organizations. It is not only the young mathematicians who are not being hired that suffer from these cutbacks. The research community at large suffers from the loss of ideas and energy that these graduate students, postdoctoral fellows, and early career researchers bring to the field and the country suffers from the lost innovation.

In light of this situation, SIAM strongly supports NSF's proposed fiscal year 2013 increases in the Graduate Research Fellowship (GRF) program and the Faculty Early Career Development (CAREER) program. The GRF program would receive \$243 million, which would support 2,000 new graduate student awards. The CAREER program would receive \$216 million and would support an additional 40 CAREER awards, totaling 440 new awards for fiscal year 2013 if funded.

Before reaching the graduate and early career stage, young mathematicians and scientists gain critical interests and skills as undergraduates. SIAM supports efforts by NSF to improve undergraduate science, technology, engineering, and mathematics (STEM) education, and notes the key role that mathematicians play in training for these fields. As interdisciplinary research questions become increasingly central to scientific progress, students need early exposure to research experiences and interdisciplinary challenges. SIAM supports the newly proposed Expeditions in Education Initiative, which will better link NSF research and education activities to enable hands-on learning for students on cutting-edge systems and challenges across disciplines.

CONCLUSION

We would like to conclude by thanking you again for your ongoing support of NSF that enables the research and education communities it supports, including thousands of SIAM members, to undertake activities that contribute to the health, security, and economic strength of the United States. NSF needs sustained annual funding to maintain our competitive edge in science and technology, and therefore, we respectfully ask that you continue robust support of these critical programs by providing \$7.373 billion for NSF in fiscal year 2013.

We appreciate the opportunity to provide testimony to the subcommittee on behalf of SIAM. SIAM looks forward to providing any additional information or assistance you may ask of us during the fiscal year 2013 appropriations process.

PREPARED STATEMENT OF THE NATURE CONSERVANCY

Thank you for the opportunity to offer comments on the fiscal year 2013 appropriations for the National Oceanic and Atmospheric Administration (NOAA). The Nature Conservancy (Conservancy) is an international, nonprofit conservation organization working around the world to protect ecologically important lands and waters for nature and people. Our mission is to conserve the lands and water upon which all life depends.

As the Nation enters the fiscal year 2013 budget cycle and another year of fiscal challenges, the Conservancy recognizes the need for fiscal austerity and stresses our concern that the natural resource stewardship programs should not shoulder a disproportionate share of cuts in this budget.

Our recommendations this year do not exceed the President's budget request except in cases in which the ocean and coastal programs have borne a severely disproportionate cut and will result in the inability for NOAA to meet its critical stewardship mandates. Moreover, as a science-based and business-oriented organization, we believe strongly that the budget levels we support represent a prudent investment in our country's future that not only help NOAA achieve their most critical missions by catalyzing local and regional action, but will also reduce risks and ultimately save money based on tangible economic and societal benefits natural resources provide each year to the American people.

Fisheries Management.—The 2007 amendments to the Magnuson-Stevens Fisheries Conservation and Management Act (MSFCMA) were intended to end over-

fishing in the United States and reduce destructive fishing practices in U.S. waters. Further, it included new provisions that create mechanisms for communities to engage in conservation efforts while securing the contribution of marine fisheries to their local economies. NOAA Fisheries, in implementing the MSFCMA, has made important strides in addressing these challenges and strengthening fisheries management; however, much more needs to be done. To recover fish stocks so that they provide food and jobs to struggling fishermen now and in the future, we need to recover overfished stocks, reduce destructive fishing practices, restore coastal habitats that produce fish, and support the efforts of fishermen and local communities that depend on fishing. The following NOAA programs are essential to achieving healthy coastal habitats and continued robust fisheries management.

*Fisheries Habitat Restoration*¹.—Marked by the President's fiscal year 2013 request, we are increasingly concerned that NOAA views investment in habitat restoration subordinate to more traditional fisheries management undertakings. As the gulf oil spill made tragically clear, healthy coastal habitats are essential to the economic and social well-being of coastal residents as well as others throughout the Nation that rely on coastal communities for commerce, food, and recreation. Coastal wetlands and nearshore waters produce the fish and shellfish that feed America. Furthermore, salt marshes, oyster reefs, seagrass meadows, and coral reefs help to prevent erosion and protect our communities from storm surges. Since 2001, The Nature Conservancy and NOAA have partnered through the community-based Restoration program (funded under the Fisheries Habitat Restoration line item along with the Open Rivers Initiative) to restore the health of degraded habitats in places and ways that benefit not just local marine life, but communities and coastal economies as well.

Through the 124 community-based projects supported in the first decade of this partnership, NOAA and the Conservancy have helped protect vital coastal and marine habitat, restore species that keep coastal systems healthy, remove invasive species, create shellfish spawning sanctuaries and re-establish water flows to estuaries. Beyond the environmental benefits, these projects have shown that restoration pays off for coastal communities, producing jobs for direct restoration work and supporting coastal communities through increased fish production. A recent economic analysis of oyster reef restoration in the Northern Gulf of Mexico provided compelling evidence for such claims, finding that two reefs totaling 3.6 miles would increase economic output of commercial finfish and crab landings by \$35,000 per year; cut wave height and energy significantly, reducing shoreline erosion and associated damages to private property and public infrastructure; and remove up to 4,160 pounds of nitrogen per year from Bay waters.²

Through our on-the-ground experience we recommend \$22 million for the Fisheries Habitat Restoration in the fiscal year 2013. Moreover, we request that no less than \$9 million should be made available for competitive cooperative agreements through the Community-based Restoration Program (CRP). Additional funding beyond cooperative agreements and program administration of CRP should be dedicated to the Open Rivers Initiative.

National Catch Share Program.—Catch Shares give participating fishermen a stake in the benefits of a well-managed fishery and align the incentives for resource stewardship with the natural incentive for fishermen to increase their earnings with a sustainable business model. Transition to these systems is difficult and getting the design and implementation of these new catch share programs, including provisions to engage fishing communities, right is critical. The Conservancy supports the President's fiscal year 2013 budget request of \$28 million for the National Catch Share Program.

Annual Stock Assessments.—The Magnuson-Stevens Act mandated annual catch limits in all fisheries to prevent overfishing by in place by 2011. While this milestone has been achieved, there is room for continued improvement in fishery data collection and stock assessments. Adequate stock assessments are essential for the sound management of fisheries and the sustainability of fishing resources. The Conservancy supports the President's fiscal year 2013 budget request of \$69 million for annual stock assessments.

Pacific Coastal Salmon Recovery Fund.—The Pacific Coast Salmon Recovery Fund (PCSRF) is the most critical Federal program addressing major threats to Pacific salmon so that these fish can continue to sustain culture, economies, recreation, and

¹Relocated in NOAA's fiscal year 2013 bluebook under "Habitat Management and Restoration".

²Kroeger, Timm (2012). "Oyster Reef Restoration in the Northern Gulf of Mexico: Ecosystem Services, Economic Benefits and Impacts, and Opportunities for Disadvantaged Coastal Communities." The Nature Conservancy.

ecosystem health. This Federal funding source is tailored for each State, competitively awarded based on merit and has funded hundreds of successful, on-the-ground salmon conservation efforts. PCSRF invests in cooperative efforts to conserve species under the National Marine Fisheries Service (NMFS) jurisdiction and projects are matched at a 3:1 ratio (Federal/non-Federal) and have resulted in significant progress in protecting and restoring salmon across their range. Notably, the PCSRF has catalyzed thousands of partnerships among Federal, State, local, tribal governments, conservation, business, and community organizations. The Conservancy urges sustaining at least \$65 million for the competitive and proven PCSRF grants program.

Species Recovery Grants.—Through this program, NMFS provides grants to States to support conservation actions that contribute to recovery or have direct conservation benefits for listed species, recently de-listed species, and candidate species that reside within that State. We support the President fiscal year 2013 budget's request for \$4.8 million.

Ocean Services.—Over the years, and across many sites, NOAA has been an invaluable partner to the Conservancy. NOAA programs that provide practical, community-oriented approaches to restoration, resource management, and conservation are natural fits for the Conservancy's mission. The Coastal Services Center and National Estuarine Research Reserve programs educate hundreds of local community officials and practitioners to better ways to apply tools and science. In addition, NOAA's data, research and monitoring of coastal and marine systems directly provide data and decision-support tools that inform the safe operations of industry, prioritize habitats for restoration, and advance science-based management decisions. The following funding recommendations highlight critical programs that support productive coastal communities and healthy coastal and marine places.

Coral Reef Conservation Program.—The decline of coral reefs has significant social, cultural, economic, and ecological impacts on people and communities in the United States and around the world. The Conservancy works with NOAA's Coral Reef Conservation Program under a competitively awarded, multiyear cooperative agreement to address the top threats to coral reef ecosystems:

- climate change;
- overfishing; and
- land-based sources of pollution.

Together we develop place-based strategies; develop resilient marine-protected area networks; measure the effectiveness of management efforts; and build capacity among reef managers at the global scale. NOAA has undertaken a coral reef conservation priority setting exercise in all seven of the U.S. jurisdictions with coral reef resources. The Conservancy supports the President's fiscal year 2013 budget request of \$27 million to provide funding to support implementation of these conservation priorities, including more comprehensive mapping and data compilation and analysis on cold water corals in U.S. waters.

Coastal and Estuarine Land Conservation Program.—Created by the Congress in 2002 and formally authorized in 2009, the Coastal and Estuarine Land Conservation Program (CELCP) program has helped preserve approximately 45,000 acres of America's most important coastal areas. All Federal funding for CELCP is leveraged by at least an equal amount of State, local, and private investments. There is significant demand for coastal conservation that is not being met. In the last several years, NOAA has identified and vetted more than \$270 million in coastal projects that are eligible for CELCP program funding. The fiscal year 2013 President's budget request recommends the removal of all funds for CELCP. The Conservancy recommends including the fiscal year 2012 enacted level of \$3 million in the budget to minimally support a program that utilizes both acquisition and conservation easements to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values.

Regional Ocean Partnerships.—The funding would provide support to implement priority actions identified by existing and developing Regional Ocean Partnerships including the Northeast Regional Ocean Council, the Mid-Atlantic Regional Council on Oceans, the South Atlantic Alliance, the Gulf of Mexico Alliance, the West Coast Governors' Agreement on Ocean Health, and the Council of Great Lakes Governors. These multi-state collaborations originated to address regional priorities such as habitat conservation and restoration, energy siting, coastal resilience to severe storms, coastal water quality, and regional data and science needs. Additional funding should be provided to support State and regional engagement in the development of marine planning, including stakeholder processes and consensus building tools, analysis of data and information, and facilitation of broad public participation in the planning process. The Conservancy urges a least \$4 million to advance vital regional ocean and coastal priorities.

National Estuarine Research Reserve System.—The National Estuarine Research Reserve System (NERRS) partners with States and territories to ensure long-term education, stewardship, and research on estuarine habitats. Atlantic, gulf, Pacific, Caribbean, and Great Lakes reserves advance knowledge and stewardship of estuaries and serve as a scientific foundation for coastal management decisions. This unique site-based program around the Nation contributes to a systemic research, education, and training on the Nation's estuaries. The Conservancy recommends including the fiscal year 2012 enacted level of \$22 million in the budget.

National Marine Sanctuaries Program.—National marine sanctuaries support economic growth and hundreds of coastal businesses in sanctuary communities; preserve vibrant underwater and maritime treasures for Americans to enjoy; and provide critical public access for ocean recreation, research, and education. Investment in these sites do more than simply protect small areas of the ocean, but a downpayment on the many other Americans whose livelihoods are dependent on a healthy ocean and coasts. The Conservancy supports the President's fiscal year 2013 budget request of \$47 million.

Thank you for this opportunity to share with the subcommittee the Conservancy's priorities in NOAA's fiscal year 2013 budget. We would be pleased to provide the committee with additional information on any of the Conservancy's activities described here or elsewhere.

PREPARED STATEMENT OF THE PLANETARY SOCIETY

The Planetary Society is deeply troubled with the priorities reflected in National Aeronautics and Space Administration's (NASA) fiscal year 2013 budget. If implemented, it will portend grave consequences for our Nation's ability to conduct deep-space science missions and could irreversibly erode unique aspects of the space industrial base needed for such missions.

Specifically, the disproportionate cut to the Planetary Science budget would force NASA to walk away from planned missions to Mars, to back out of international agreements with the European Space Agency (ESA), delay for decades any flagship missions to the outer planets, and radically slow the pace of scientific discovery, including the search for life on other worlds. We think this is the wrong direction for America's space program.

Planetary Science is the part of NASA that's actually conducting interesting and scientifically important missions. Spacecraft sent to Mars, Saturn, Mercury, the Moon, comets, and asteroids have been making incredible discoveries, with more to come from recent launches to Jupiter, the Moon, and Mars. The country needs more of these robotic space exploration missions, not fewer.

For the first time in human history, we have the tools available to directly test the hypothesis of whether there is, or has been, life on other worlds such as Mars or Europa. Such a discovery would be a seminal event in human history and would have a deep and profound impact on how we view our place in the Universe, much as Copernicus sparked the Age of Enlightenment 500 years ago with his theory that the Earth orbits the Sun, just like any other planet. We stand at the dawn of a similar period in which our knowledge and understanding of the Universe is poised to take another giant leap forward.

We understand that NASA is undertaking a review to examine options for potential future Mars missions, and we support efforts to put the program back on track, but we are also adamant that decisions for future planetary missions be guided by the most recent Planetary Science Decadal Survey of the National Research Council. It took almost 2 years to forge a consensus of 1,700 planetary scientists and should not be dismissed or watered-down. NASA's science programs have achieved great successes based on the decadal-survey process and all should be reluctant to abandon it.

While it may appear attractive to develop an integrated strategy for Mars science missions and an eventual human mission to Mars, the lack of clear goals and tangible program plans on the human side suggests the discussion is premature, at best.

We recognize the intense fiscal and budget pressure the country faces. We understand that agency programs are receiving unprecedented scrutiny and that budgets are shrinking. However, today's budget environment is also an opportunity to take stock of what's working and what's not working, and to adjust priorities.

Today, approximately 27 percent of NASA's budget goes to Science, with 8 percent of NASA's total going to Planetary Science. The human spaceflight program (SOMD + ESMD) consumes about 45 percent of NASA's budget, and the remaining 28 percent goes to aeronautics, technology, and infrastructure. The Planetary Soci-

ety is a strong supporter of both human and robotic space exploration and a strong advocate for investments in technology. However, given the impacts of the proposed fiscal year 2013 budget, some adjustments are needed.

Specifically, the Planetary Society recommends reallocating approximately 3 percent from within NASA's total budget to rebaseline the share for Science to at least 30 percent and restoring the \$300 million cut to Planetary Science to fund it at \$1.5 billion. This modest rebalancing will allow NASA to fully implement the decadal survey for Planetary Science, send a mission to Mars and prepare for missions to the outer planets, while allowing NASA to continue a robust program of missions in Earth Science, Astronomy, and Heliophysics.

We arrive at this conclusion primarily because NASA's Science program currently has an abundance of compelling world-class science missions with clearly defined mission goals and carefully crafted program plans that are poised to move out. We believe that a healthy and vibrant Science program is an excellent investment that will energize, engage, and inspire the next generation of scientists, engineers, educators, and the public, as has been the case with the Mars rovers and many other missions. The diversity and frequency of science mission opportunities laid out by the decadal survey will significantly contribute to thousands of high-tech jobs in the aerospace industry, at research laboratories, and in universities. These programs will stimulate the best and brightest with interesting and meaningful scientific and technical challenges that will make our Nation stronger and more competitive.

While we recognize these are difficult choices, we believe an increase in the share of the NASA budget for Science to 30 percent is the best place for the agency to make the most effective use of the taxpayers' money at this time and in today's budget environment.

We are at the brink of the next revolution in scientific understanding. A great Government will lead this pursuit and make these investments because it will make a difference to our society and to our children.

PREPARED STATEMENT OF THE UNIVERSITY CORPORATION FOR ATMOSPHERIC
RESEARCH

On behalf of the University Corporation for Atmospheric Research (UCAR), I submit this written testimony to the Senate Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies for the committee record. UCAR is a consortium of more than 100 research institutions, including 77 doctoral-degree granting universities, which manages and operates the National Center for Atmospheric Research (NCAR) on behalf of the National Science Foundation (NSF). I urge the subcommittee to support the following levels of science funding in the fiscal year 2013 Commerce, Justice, Science and Related Agencies Appropriations Act.

National Science Foundation.—At least \$7.373 billion, including \$106.6 million for NCAR within the Geosciences Directorate (GEO).

National Aeronautics and Space Administration.—\$5.073 billion for Science, and within this mission directorate, \$1.785 billion for Earth science, including \$440.1 million for Earth science research, and \$647 million for Heliophysics.

National Oceanic and Atmospheric Administration (NOAA).—\$5.008 billion, including \$413.8 million for the Office of Oceanic and Atmospheric Research (OAR), \$212.7 million for the OAR Climate Research line, and \$991.9 million for the National Weather Service (NWS).

Countless economic studies over the years have demonstrated the link between federally funded scientific R&D and economic vitality, industry and job growth, productivity, competitiveness, and innovation. Even in this difficult economic environment, we must maintain a balance of basic research elements including the scientific workforce; data collection, analysis and storage; computing; and facilities. As I describe below, I am concerned that the President's budget request for fiscal year 2013 represents some imbalance within the science agencies.

National Science Foundation

I urge you to support the President's fiscal year 2013 request of \$7.373 billion for NSF. NSF's mission is to support basic research which is the basis for two key drivers of our economy—technology development and innovation. According to the NSF budget request, "In a given year, NSF awards reach nearly 1,900 colleges, universities, and other public and private institutions in 50 States, the District of Columbia, and Puerto Rico. In fiscal year 2013, NSF support is expected to reach approximately 285,000 researchers, postdoctoral fellows, trainees, teachers, and students." As illustrated by these numbers, NSF is indispensable to the health and resiliency of our Nation's scientific R&D enterprise.

National Center for Atmospheric Research.—NSF's GEO supports a broad and diverse academic field that contributes to our understanding of long-term weather, extreme weather, dynamics of water resources, effects of the Sun on the Earth, effects of space weather on global communications, interactions of the Earth's systems, energy resources, geologic hazards, and all aspects of the global oceans. UCAR endorses the President's fiscal year 2013 request of \$906.4 million for NSF's GEO.

However, I do have concerns within the GEO budget request that I would like to address, namely the proposed budget for the NCAR. In recent years, NSF has created constructive, cross-cutting initiatives meant to address issues of importance to the Nation, such as sustainability. Investment in these meritorious activities has unfortunately come at the expense of established NSF programs and centers, many which complement the new initiatives. Given Federal budget pressures, this promises to undercut some of the basic, critical programs that NSF provides the Nation, including NCAR, an NSF Federally Funded Research and Development Center that expands the capacity of the Nation's academic community to understand weather, the composition of the atmosphere, Sun-Earth interactions, space weather, and the interactions between oceans and atmosphere.

Further, while NSF, GEO, and the Division of Atmospheric and Geospace Sciences in which NCAR resides, all show increases in the budget request for 2013, primarily to fund ongoing growth in the sustainability research portfolio, NCAR's proposed budget is decreased by 6.4 percent compared to the fiscal year 2012 estimate. The budget request language states, "This level of support protects the operation of the NCAR/Wyoming Supercomputer Center (NWSC), completed on time and within budget, and maintains support for other key community research infrastructure operated by NCAR." However, NCAR encompasses an integrated and well-leveraged combination of both science and facilities. Continuing full support for this infrastructure, including the added costs of operating the NWSC, while absorbing a cut to the NCAR budget of more than \$6 million, will place NCAR's basic science research and community support programs, some of the best in the world, in jeopardy. Cutting the laboratory would be counterproductive to the potential productivity of the NWSC, given the computing center's reliance on NCAR modeling and scientific expertise. With a balanced NCAR portfolio of science and facilities, NWSC operations will advance many fold critical weather and climate research contributions.

We estimate that real cuts, when all expenses are tallied, would amount to decreases to NCAR's scientific research on the order of 11 to 13 percent. Simply to maintain programs and infrastructure, NCAR would need an increase over the fiscal year 2012 appropriated amount. I urge the committee to support funding of \$106.6 million for NCAR within GEO's Division of Atmospheric and Geospace Sciences, and further, to direct the agency to maintain ongoing support for NCAR at sustainable levels in future budgets, including the financing of the NWSC operating costs, without reducing the NCAR base funding as an offset.

NASA—Science Mission Directorate

The research supported and data collected by National Aeronautics and Space Administration (NASA) Science Mission Directorate are essential to atmospheric sciences research and global Earth observations. Through the use of space observatories, satellites, and other probes, NASA helps us achieve a deeper understanding of Earth, including answers to how the Earth's long-term weather patterns may be changing. I urge the subcommittee to fund the Science Mission Directorate at \$5.073 billion, the amount appropriated in fiscal year 2012 and a level of funding that would help to keep on track future missions that are now threatened with delay.

Earth Science.—Given the promise of observatories such as the Orbiting Carbon Observatory 2 (OCO-2), I am pleased that the President's budget request proposes to increase funding for this and other Earth System Science Pathfinder missions in fiscal year 2013. The National Academy of Sciences decadal survey, *Earth and Science Applications from Space: National Imperatives for the Next Decade and Beyond*, released in 2007, continues to provide a critical set of recommendations of the most compelling needs in future Earth observations. Ice, Cloud and Land Elevation Satellite-2 (ICESat-2) and Soil Moisture Active-Passive (SMAP) are Tier 1 decadal survey missions funded within the Earth Systematic Missions line office. Expected to launch in 2014 and 2016, respectively, the fiscal year 2013 request keeps these important missions on schedule. However, other important missions recommended by the decadal survey are threatened with delays that jeopardize their future. Given the importance of these measurements to scientists, State and city planners, first responders, and Governors, the Nation must not allow any further delay in the deployment of these resources needed for our States and localities to wisely and appropriately adapt in the decades to come. I urge you to fund the President's request of \$1.785 billion for Earth science in fiscal year 2013.

While the fiscal year 2013 budget request provides funding to keep many important Earth science missions on track, it also proposes a \$6.5 million cut to Earth Science Research that is critical to translating missions into discoveries and new knowledge. At least 90 percent of the funds of this program are competitively awarded to investigators in academia, the private sector, laboratories, and other academic centers to utilize NASA data to further our understanding of Earth processes. A \$6.5 million cut portends the loss of ongoing research projects and critical grant money for atmospheric scientists at national universities and NCAR. I urge you to restore funding for Earth Science Research to \$440.1 million, the amount appropriated in fiscal year 2012.

Heliophysics.—With all of human civilization located in the extended atmosphere of the Sun, heliophysics is a critical discipline for understanding Sun/Earth connections. This research allows us to analyze the connections between the Sun, solar wind, and planetary space environments. NASA's Heliophysics division enables NCAR to serve the solar-terrestrial physics community through delivery of community models for the upper atmosphere, instrumentation for space and balloon flights, and solar and upper-atmospheric data from space and balloon missions. I urge you to fund Heliophysics at the requested \$647 million.

NOAA

All Americans benefit from the life-saving warnings produced by NWS. What many Americans do not understand is the research behind producing accurate forecasts. Satellite and ground observations collect data around the clock on real-time conditions. Computer models are run to produce projections and predictions as weather develops. Research collaborations with the Nation's leading universities and the private sector produce improved data analysis, enhanced forecasting capabilities, and technology development. Free and open access to forecasts and weather data enable broadcast meteorologists and others to reach citizens, local governments, and resource managers with critical information. The sum of the parts, when all are supported appropriately in a balanced manner, adds up to saved lives, protected property, enhanced homeland security, and benefits to the economy. Yet NOAA's budget is one of the least balanced of the scientific agencies. NOAA is roughly a \$5 billion agency, with nearly \$2 billion dedicated to satellite programs. These satellite observing systems, all located within NOAA's National Environmental Satellite, Data, and Information Service, will produce data that are absolutely essential to the Nation's weather, space weather, and climate forecasting capabilities. But they cause an imbalance to NOAA's budget that threatens to torque NOAA's mission and products. I urge you to support the requested fiscal year 2013 amount of \$5.008 billion for NOAA, but to consider increasing that amount to restore the balance to NOAA programs that will make it possible for the agency to provide the best scientific and operational products.

Office of Oceanic and Atmospheric Research.—In fiscal year 2011, the appropriated amount for OAR was \$416.6 million. For fiscal year 2013, the President requests a total of \$403.4 million, taking the office back almost to the 2009 level. While it may appear that OAR receives a healthy 7.7-percent proposed increase for fiscal year 2013, fiscal year 2012 cuts were much deeper than this increase. I urge you to fund OAR at the requested \$413.8 million (operations, research, and facilities (ORF) and procurement, acquisition, and construction (PAC) combined), recognizing that additional investment is needed to restore recent funding cuts to OAR that have resulted in the termination and downsizing of many important NOAA research programs.

One example of such fiscal year 2012 cuts at OAR is the Climate Competitive Research, Sustained Observations, and Regional Information program, which funds extramural research that leverages NOAA programs and provides some of the needed program balance to its portfolio. States rely upon the climate, weather, and water outlooks developed under this program to develop seasonal and yearly management plans for water, agriculture, energy, and fisheries. In addition to these critical regional outlooks, this account funds global ocean observing programs essential for accurate weather forecasting and satellite calibration and validation, which are required to reap full use of the billions invested in satellite observations. I urge you to fund OAR's Climate Research portfolio at the requested \$212.7 million, and to fund the President's request of \$146.3 million for Climate Competitive Research, Sustained Observations, and Regional Information.

National Weather Service.—As noted earlier, NWS is a 24/7 operation, and is this Nation's sole authoritative source for issuing warnings and forecasts related to weather, severe weather, and long-term weather trends. To continue providing these critical services to the country, NWS must have as much information about weather conditions as possible. The less information, the less accurate the forecast will be.

Yet, the fiscal year 2013 request seems to cut multiple data gathering programs. Again, the loss of data gathering capabilities creates a serious imbalance to NWS activity. However, within NWS, we are extremely pleased with the progress being made by the Hurricane Forecast Improvement Program (HFIP) that promises great improvement in the reliability of hurricane forecasts. HFIP computing resources have been proposed for cuts in fiscal year 2013. Given the great promise of HFIP to save lives and property, I ask that that computing resource be restored. I urge you to fund NWS at the requested level of \$991.9 million (ORF and PAC combined) and to consider a higher level so that restoration of essential observing and computing facilities may be achieved.

Thank you for your service to our Nation's scientific enterprise and for the opportunity to express these views on behalf of the geosciences community.

PREPARED STATEMENT OF THE UNIVERSITY OF COLORADO BOULDER

I write today to urge you to support the President's fiscal year 2013 budget request of \$413.8 million for the National Oceanic and Atmospheric Administration's (NOAA) Office of Oceanic and Atmospheric Research (OAR), which supports some of the Nation's most critical environmental research. Within OAR, I particularly support the Competitive Research, Sustained Observations and Regional Information program, which facilitates the production of regional, national, and global weather and water outlooks. The President's budget request of \$146.3 million for this program would restore the 20-percent cut it sustained in fiscal year 2012.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

NOAA OAR funding supports research that increases the effectiveness of observations, monitoring, and modeling to help States manage their infrastructure, agricultural resources, fisheries, water resources, and natural disaster planning and response. Past research has focused on forecasting large storm events, seasonal wild-fire forecasts, assessing local impacts of projected sea-level rise, improving seasonal precipitation forecasts to improve dam management for both flood control and water storage, and forecasting energy demand scenarios.

OAR funding also supports 18 Cooperative Institutes. These are located across 21 States, Puerto Rico, and the Virgin Islands and are affiliated with 48 universities and research institutions. The Cooperative Institutes are partnerships that benefit the Nation by leveraging the unique strengths of NOAA and universities and research institutions in areas ranging from satellite climatology and fisheries biology to atmospheric chemistry and coastal ecology. In addition to facilitating long-term, substantive research collaboration, the Cooperative Institutes facilitate the training of the Nation's next generation of both NOAA's and the Nation's scientific workforce. These cooperative entities—already strained by fiscal year 2012 budget cuts—are the very type of innovative partnerships the Federal Government should be promoting. Given the value of the Cooperative Institutes, further reductions to NOAA's research budget would have negative implications that extend far beyond any near-term budget savings.

In addition, some of NOAA's laboratories that support Cooperative Institutes and which are, in part, supported through OAR funds—such as the Geophysical Fluid Dynamics Laboratory in New Jersey, the Earth Systems Research Laboratory in Colorado, the Pacific Marine Environmental Laboratory in Washington, the Atlantic Oceanographic and Meteorological Laboratory in Florida, the Great Lakes Environmental Research Laboratory in Michigan, and the National Severe Storms Laboratory in Oklahoma—risk staff reductions and reduced research effectiveness as a result of budget cuts in NOAA's research portfolio.

COMPETITIVE RESEARCH, SUSTAINED OBSERVATIONS, AND REGIONAL INFORMATION

While OAR sustained a 10-percent cut in funding in fiscal year 2012 from fiscal year 2011 levels, the Competitive Research, Sustained Observations and Regional Information program carried a disproportionate amount of that burden with a 20-percent cut from fiscal year 2011 levels. The President's budget request would restore this program's funding to ensure continued support of critical science aimed at understanding the impact of atmospheric, oceanic, land-based, snow and ice processes on climate.

This competitive climate research program funds grant activities focused on climate observation and monitoring; Earth system science; modeling, analysis, predictions, and projections; and climate and societal interactions. These programs not

only fund important research in these areas, but they also support unique tools such as observational instruments, data and information sets, and assessment teams. These measure key climate factors such as temperature, precipitation, runoff, and soil moisture, and contribute to regional decisionmaking across the United States to facilitate responses to climate variability and change.

CONCLUSION

Research that stems from NOAA's OAR budget has real and positive impacts on the Nation's well-being, allowing us to prepare for the impacts of shifts in weather, water supplies, and storms. Just some examples of the research areas that could be negatively impact from further reductions include:

- Forecasting of hurricanes and El Niño-Southern Oscillation events;
- real-time sea level measurements used for tsunami warning systems;
- storm surge monitoring; and
- provision of data for early drought warning systems used by water and natural resource managers in the Colorado River Basin, California, and the shared watershed of Georgia, Alabama, and Florida.

Even in this fiscally constrained environment, the Nation must continue to invest in climate research, observations, monitoring, and modeling. I urge you to support the President's fiscal year 2013 budget request for NOAA OAR research at \$413.8 million, and the competitive climate research program at \$146.3 million. Funding at this level will enable the Nation's research institutions to continue their long and proud history of partnering with NOAA, industry, and other Government agencies to provide the Nation with useable atmospheric and oceanographic data to help plan for and respond to the impacts of climate variability and change.

Thank you for your consideration of this testimony.

PREPARED STATEMENT OF VOR

PROTECTING THE INTERESTS OF RESIDENTS OF INTERMEDIATE CARE FACILITIES FOR PERSONS WITH INTELLECTUAL DISABILITIES IN ACTIONS CONDUCTED BY THE DEPARTMENT OF JUSTICE'S CIVIL RIGHTS DIVISION THAT AFFECT THEIR CHOICE OF RESIDENCY

VOR, a national advocacy organization for people with intellectual disabilities/developmental disabilities (ID/DD) and their families express gratitude to the Subcommittee on Commerce, Justice, Science and Related Agencies for this opportunity to submit testimony for the record of the hearing on March 8, 2012, in consideration of fiscal year 2013 appropriations for the Department of Justice (DOJ). VOR's members look forward to working with Senators and their staff to ensure the civil rights of our most fragile citizens with ID/DD.

REQUEST THAT DEPARTMENT OF JUSTICE MEET ITS CHOICE OBLIGATIONS UNDER THE AMERICANS WITH DISABILITIES ACT IN DEPARTMENT OF JUSTICE ACTIONS INVOLVING INTERMEDIATE CARE FACILITIES

To protect the interests of the residents of ICFs for the DD and their families to be the primary decisionmakers regarding where they reside, in response to the blatant and repeated disregard of the ADA requirement for individual choice of residency by the DOJ's Civil Rights Division, VOR requests that the subcommittee include the following language in the DOJ Civil Rights Division appropriations:

- In any action taken by DOJ, including investigations, that involves the residents of an ICF/ID, DOJ shall consult with the residents (or, if a resident has a legal representative, the resident's legal representative) and families among all other interested parties before taking action.
- If, after taking action, families wish to intervene on behalf of their family member with ID/DD in the DOJ action, DOJ is encouraged to support such intervention.

ABOUT VOR

VOR is a national advocacy organization representing individuals with ID/DD and their families. VOR has thousands of members across the country, with representation in every State. Unlike other national advocacy organizations, VOR recognizes that individuals with ID/DD and their families are the primary decisionmakers regarding services and supports. We recognize that legitimate choice and person-centered supports are only possible in a system that offers a full array of quality resi-

dential and support options, from small homes to Medicaid-funded and licensed ICFs/ID.

RATIONALE: DOJ'S CIVIL RIGHTS DIVISION HAS ROUTINELY IGNORED OLMSTEAD'S CHOICE
MANDATE

For fiscal year 2013 DOJ has requested an additional 25 attorneys and \$5.1 million to enable the DOJ's Civil Rights Division to, among other activities, "strengthen civil rights enforcement efforts" as part of the Attorney General's Vulnerable People Priority Goal. A portion of the requested increase will reportedly allow the Civil Rights Division to increase its enforcement of the Civil Rights of Institutionalized Persons Act (CRIPA). Presumably any additional funds and attorneys, in part, would also be applied to the Civil Rights Division aggressive enforcement of *Olmstead*. According to a recent statement by Tom Perez, Assistant Attorney General for Civil Rights:

"The agreement with the Commonwealth [of Virginia] is part of a broad, nationwide effort to enforce the *Olmstead* decision. In the last 3 years, the Civil Rights Division has joined or initiated litigation to ensure community-based services in more than 35 matters in 20 States. We reached comprehensive agreements with the States of Georgia and Delaware that, like the agreement with Virginia, provide broad relief for thousands of individuals with disabilities." (Tom Perez, "Department of Justice Transformative Olmstead Settlement", February 6, 2012).

In DOJ actions in Virginia, Georgia, Illinois, Arkansas and other States, the legal "relief" for the affected individuals sought or supported by the Civil Rights Division has been the displacement of fragile individuals from life-sustaining, federally licensed supports ("deinstitutionalization") without regard to choice and with little apparent concern for outcomes. These actions to enforce *Olmstead* are expressly contrary to the Supreme Court's decision:¹

"We emphasize that nothing in the ADA [Americans with Disabilities Act] or its implementing regulations condones termination of institutional settings for persons unable to handle or benefit from community settings . . . Nor is there any Federal requirement that community-based treatment be imposed on patients who do not desire it." 527 U.S. 581, 601-02(1999) (see also, Justice Kennedy's concurring opinion, "It would be unreasonable, it would be a tragic event, then, were the Americans with Disabilities Act of 1990 (ADA) to be interpreted so that States had some incentive, for fear of litigation to drive those in need of medical care and treatment out of appropriate care and into settings with no assistance and supervision").

Specifically, the Supreme Court held that community placement is only required when:

- The State's treatment professionals have determined that community placement is appropriate;
- The transfer from an institutional setting to a less restrictive setting is not opposed by the affected individual; and
- The placement can be reasonably accommodated, taking into account the resources available. *Id.* at 587.

Increased funding for CRIPA or ADA enforcement for deinstitutionalization activities will undoubtedly result in expanded DOJ legal activities to undermine and ultimately eliminate the option of Medicaid-certified ICFs/DD.

Families and legal guardians of our country's most vulnerable people with severe and profound ID/DD, who function at the level of infants and toddlers despite having the chronological age of adults, have strong objections to DOJ's Civil Rights Division's activities to "enforce the *Olmstead* decision." Routinely, DOJ fails to seek or consider the input or protestations of the very individuals who have the greatest insights into the needs and desires of the affected individuals:

" . . . close relatives and guardians, both of whom likely have intimate knowledge of a mentally retarded person's abilities and experiences, have valuable insights which should be considered during the involuntary commitment process." *Heller v. Doe*, 509 U.S. 312 (1993)

"Individuals with developmental disabilities and their families are the primary decisionmakers regarding the services and supports such individuals and their families receive and play decisionmaking roles in policies and programs that affect the

¹VOR contends that DOJ actions to close ICFs/DD contrary to resident choice also violates the Federal Medicaid law which requires that ICF/DD residents be informed of alternatives under the home and community-based services waiver and be given the choice of either ICF/DD or home and community-based services waiver supports. 42 C.F.R. 441.302(c).

lives of such individuals and their families.” DD Act, 42 U.S.C. 15001(c)(3)(1993) (Findings, Purposes and Policies).

The following examples exemplify the Civil Rights Division’s blatant disregard for *Olmstead*’s choice requirements:

United States v. Georgia

A Settlement Agreement reached between DOJ’s Civil Rights Division with the State of Georgia in October 2010, prohibits the admission of any individual with a developmental disability to a State hospital (ICFs/ID) by July 1, 2011, and requires the transition of ALL individuals with developmental disabilities already living in State ICFs/ID to community settings by July 1, 2015. Affected individuals were not afforded any choice and families and legal guardians expressly opposed the settlement: “[I]f everyone is forced to accept community living, then no one has choice.” (Resolution of the East Central Georgia ICF/ID Family Association Opposing Settlement Agreement, November 30, 2010).

Predictably, the 1-year implementation report by the court-appointed independent reviewer has found problems associated with the health and safety of displaced residents with regard to access to healthcare, medication, nutrition, and safety. Reportedly, there have been at least four deaths.

United States v. Virginia

A January 2012 Settlement Agreement between DOJ and the Commonwealth of Virginia continues to display the ideological agenda of the DOJ’s Civil Rights Division in its relentless effort to eliminate the option of Medicaid-certified ICFs/DD. If approved by the court, it will result in the closure of four public ICFs/DD. Families who had no meaningful opportunity to provide input to settlement terms but who expressly opposed closures were not listened to. A Motion to Intervene on behalf of residents of all Virginia ICFs/DD has been filed in an effort to protect individuals from displacement and harm. The Motion to Intervene demonstrates that DOJ has ignored choice, as required by *Olmstead*.

An earlier court decision from Virginia points to a pattern and practice by DOJ to disregard choice contrary to *Olmstead*:

“Thus, the argument made by ARC and the United States [DOJ] regarding risk of institutionalization fails to account for a key principle in the *Olmstead* decision: personal choice. And here, where more residents desire to remain in institutional care than the new facility can provide for, there is little to no risk of institutionalization for those whose needs do not require it and who do not desire it.” (*Arc of Virginia v. Kaine* (December 17, 2009) (see also, *Stanley Ligas, et al. v. Barry S. Maram, et al.*, 05 C 4331 (N.D. Illinois, July 7, 2009) (denying proposed settlement and decertifying class on finding that the named plaintiffs failed to meet the criteria set forth in *Olmstead* because class definition was not restricted to individuals who were eligible for, and desired, community placement).

Arkansas

In its CRIPA and ADA “civil rights” case against the State of Arkansas regarding its Conway ICF/ID, DOJ spent millions of Federal dollars and lost soundly. In his ruling dismissing the case, Federal District Court Judge Leon Holmes, addressed squarely the complete disregard by DOJ of family/guardian input and choice:

“Most lawsuits are brought by persons who believe their rights have been violated. Not this one All or nearly all of those residents have parents or guardians who have the power to assert the legal rights of their children or wards. Those parents and guardians, so far as the record shows, oppose the claims of the United States. Thus the United States [Department of Justice] is in the odd position of asserting that certain persons’ rights have been and are being violated while those persons—through their parents and guardians disagree.”

CONCLUSION: PLEASE CONDITION DEPARTMENT OF JUSTICE’S CIVIL RIGHTS DIVISION
APPROPRIATIONS ON RESPECTING CHOICE

Choice is required by the ADA, as interpreted by *Olmstead*. Families and guardians of our country’s most vulnerable citizens seek relief from DOJ’s deinstitutionalization actions which are counter to the *Olmstead* choice mandate, counter to the best interests of the affected individuals who are displaced from life-sustaining services, and are pursued in complete disregard of the input of individuals and their families as primary decisionmakers. VOR requests the subcommittee to require DOJ to fulfill the ADA’s choice requirement by the following:

—In any action taken by the DOJ, including investigations, that involves the residents of an ICF/ID, DOJ shall consult with the residents (or, if a resident has

a legal representative, the resident's legal representative) and families among all other interested parties before taking action; and
 —If after taking action, families wish to intervene on behalf of their family member with ID/DD in the DOJ action, DOJ is encouraged to support such intervention.
 Thank you for your consideration.